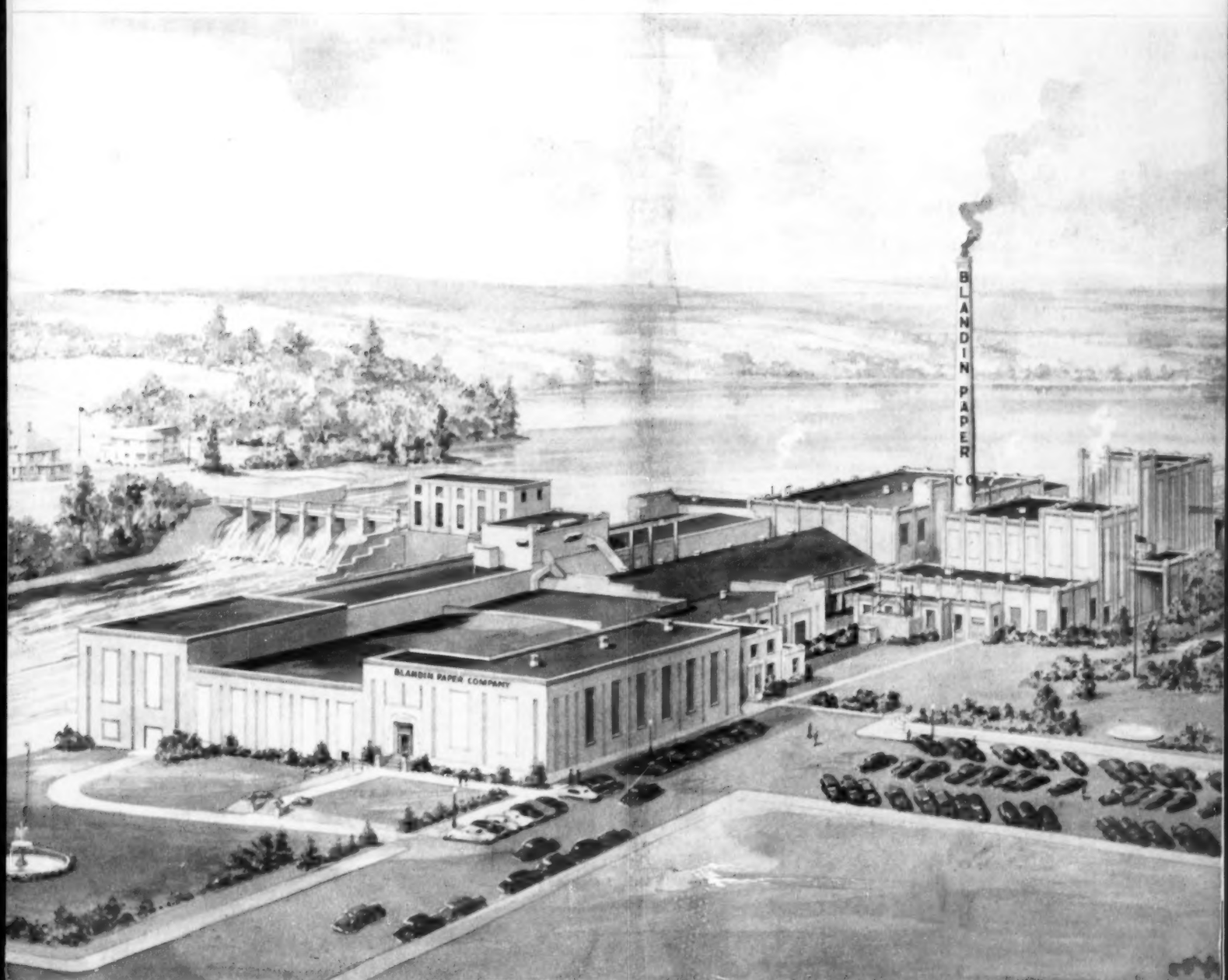
PULP & PAPER

IN THIS ISSUE

THE PRODUCTION AND MANAGEMENT JOURNAL OF THE PULP AND PAPER INDUSTRY



"PICTURE MILL ON THE MISSISSIPPI" . . . The story of modern, windowless Blandin Paper Co. is brought up to date in this issue.

VOLUME 28
NUMBER 2

FEBRUARY 1954

the difference is

High-Test Liquid Resistance with ALWAX* or WAXINE® Sizes

"... best meat board we ever made ... retained 35 to 40% of its original stiffness after one hour's soaking ..."

"... a high lactic acid test was obtained (in container board) without extra refining of stock and loss of production ..."

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PAREZ Resin 607 is the MELOSTRENGTH* Resin, backed by the Melostrength emblem now being promoted nationally.

A MARKED IMPROVEMENT IN CLEANLINESS of back liner is credited to ACCOCEL® 741 Dispersant used to disperse asphalt in waste papers. Better stiffness, too, with one mill scoring an average of over 550 (Taber) where specifications called for over 400. A sodium salt of formaldehyde-reacted naphthalene sulfonic acid, ACCOCEL 741 is a pitch dispersant of recognized effectiveness in the production of many types of papers.

For more about its properties, send for Technical Bulletin 23-A, titled ACCOCEL 741.

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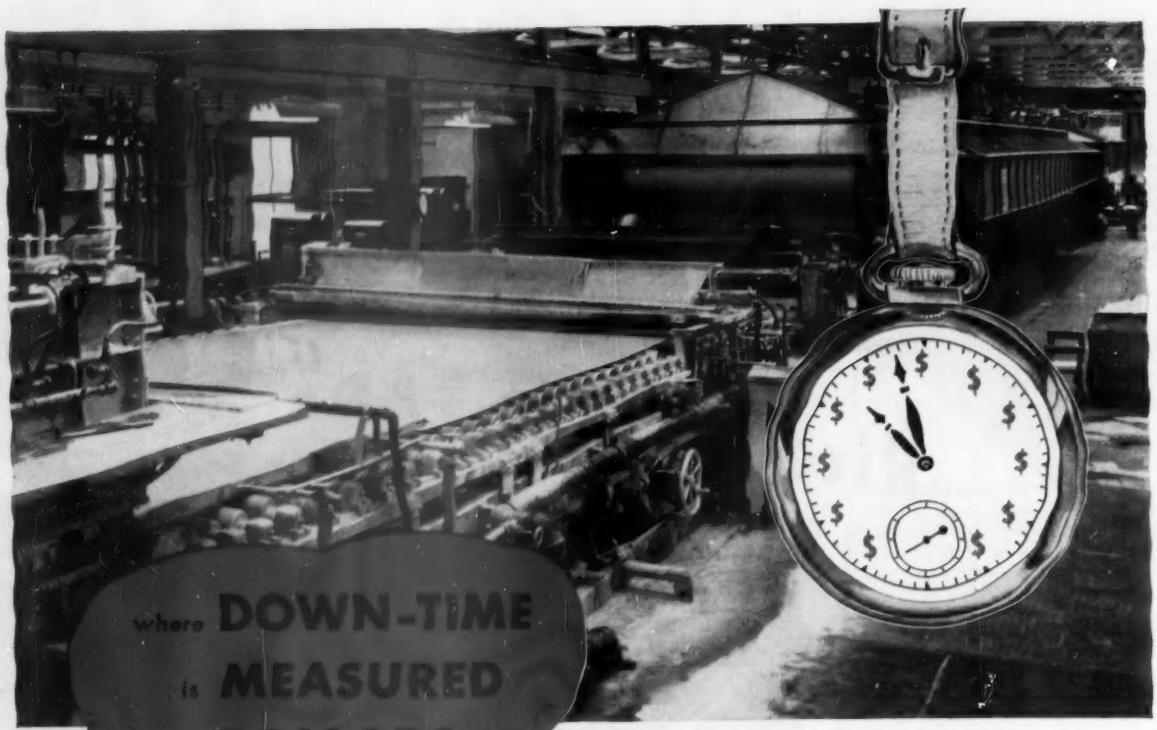

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PULP & PAPER

Production and Management Magazine of the Industry

February 1954
Vol. 28—No. 2

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COMMENT

A "Smoothy"—that was the Year 1953

We think a lot of the reviews we have read ignore one of the most satisfying facts about the year 1953, as far as pulp and paper is concerned.

Before it slips too far in limbo, let's consider this.

The industry never had it so good in living memory of its leaders, and that wasn't just because it saw a lot of records broken again.

Nearly all records were broken, for the second time in three years. But a singular thing about 1953 was that from the beginning to the end of the year, the demand was steady as well as strong for pulp and paper and their products. Inventories generally remained comfortably low, and the supply was steady as well as good.

There were no really jarring spurts nor stalls. Anno 1953, for that reason, is one to remember with fond warmth. Who cares for records in 1954, if it can only be as smooth sailing again?

One of Biggest Years Foreseen

The year 1954 is expected to be one of the best in pulp and paper industry history.

In the past, this industry has gone along about half way with any general business trend. So, if—as some leaders have forecast—general business levels off 10 percent, the pulp and paper industry should be off only 5 percent.

With new mills and considerable additional capacity coming in this year, the production total, therefore, should still hit a mark ranking 1954 with 1953 and 1951 as the three big years in this industry's history. (Based on the above forecast.)

About when the leaves start falling, we can check back on this, and see how close it came to being accurate.

Pollution Down 60 Percent in West

The pulp and paper industry of the Pacific Northwest states—Oregon, Washington and Idaho—has reduced its pollution in streams and waterways by 60 to 70 percent, according to Dr. Herman R. Amberg, of Oregon State College, and resident engineer in that area for the National Council for Stream Improvement.

And yet 1953 was the poorest salmon fishing year in many years in that area. One begins to wonder if the remarkable increase in population, and also the big increase of tourists, in that area, might have something to do with there being less fish to go around. The number of fishermen has increased by the thousands. There were 900 fishermen in the Seattle harbor for a late 1953 derby—they caught 61 salmon.

An Idea for Industry Public Relations

Pulpwood production got a big boost when papers all over the country ran the picture of the new Yankee prize pitcher, Harry Byrd, obtained from the Athletics in the biggest swap of the winter, keeping in shape by cutting pulpwood near Darington, S.C. He was shown using a power saw.

When this industry wants to publicize its needs or its products, there's a tip-off. Go out and get a famous athlete or theatrical star or other celebrity to provide the human element.

What's Bad About This?

It seems to be the popular theme now for anyone in business who has a platform from which to sound off, to express doubts that 1954 will be as "prosperous" as 1953. The crystal ball gazers all seem to be chorusing the same chant this winter.

Very few of them seem to think it is worth explaining that a year ago we were losing boys in Korea, that some plants that were making weapons of war are now shut down, and there are some people who were dependent on those industries in one way or another, who need to get into other work—and soon. (We hope they are "readjusted" soon).

Is that bad?

A New Rayon Product

We hear a lot about nylon doing a better job in some respects than rayon—which is mostly made of purified woodpulp. But now DuPont has come out with a type of rayon tire cord which is credited with increasing the life of tires 20 percent. The rayon field—market for much woodpulp—is not going to stand still, we may be sure, even though synthetic fibers are providing new competition.

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Designed to fulfil the specific demands of pulp and paper manufacture and sale, our laboratories offer to you the facilties, equipment and trained manpower for any research problem. We are a commercial research, development, engineering and testing center serving small mills, large integrated operations and individuals.

Our Pulp and Paper division is headed by JOHN B. CALKIN, Assistant to the President and Director of Market Research. A Pulp and Paper man for over 25 years, Mr. Calkin is well known for his varied and excellent services to the Industry.

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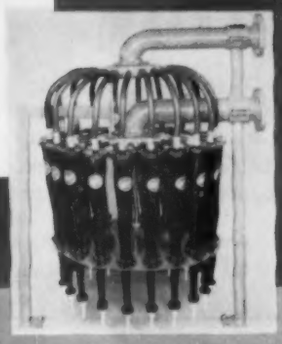

A CHANGE OF NAME AND A CHANGE IN NUMBER

Over 5000 Bauer Centri-Cleaners were sold in 1953! These were of the two basic sizes of pulp cleaners originated and patented by The Hammermill Paper Company and The Howard Smith Paper Mills, Limited.

A new, intermediate size cleaner has been added to this line as a result of our increased technical and application experience. Greater facilities in our Fiber Products Laboratory permit us to continue improvements in construction and performance.

Confusion in trade names of basically different pulp treating devices has caused us to change our cleaner name from Centri-Cleaner to BAUER CLEANER. A new bulletin, No. P-4-B, featuring the design changes and giving brief data on the new size BAUER CLEANER, will be gladly sent.

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compare the installation costs of FLOTAIR with any save-all system on the market. Write for details now!

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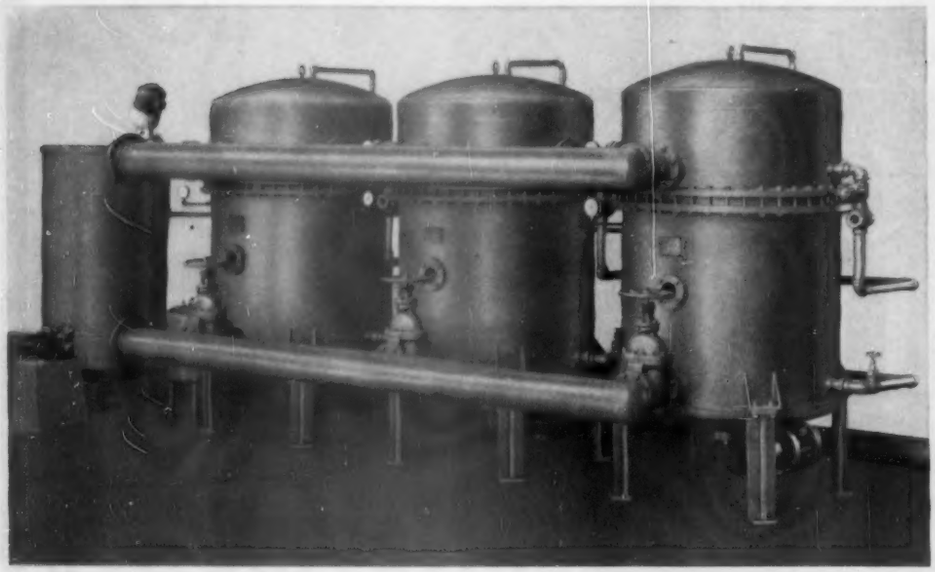
CLEAN PAPER GETS THE PRICE

ADAMS WATER FILTRATION GETS THE DIRT



Complete package installation with filter aid facilities and built-in backwashing features.

ADAMS *PORO-STONE* FILTERS for use with filter aid

where water from settling pond or crude filter needs polishing to remove all solids.

In kraft or tissue, book or newsprint — water quality is as critical as chip quality. No matter what grade of pulp or paper you make, sand, grit, pipe scale, and other impurities are expensive when they keep your product out of the top price brackets.

Water filtration with the Adams Poro-Screen or Poro-Stone Filter takes out price-lowering impurities *before* they become part of the stock. Thorough backwashing effectively prevents clogging of filter elements — avoids costly, cumbersome cleaning operations.

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13,310

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Class H Pintle chain—excellent for conveyors that slide because of broad wearing surfaces.

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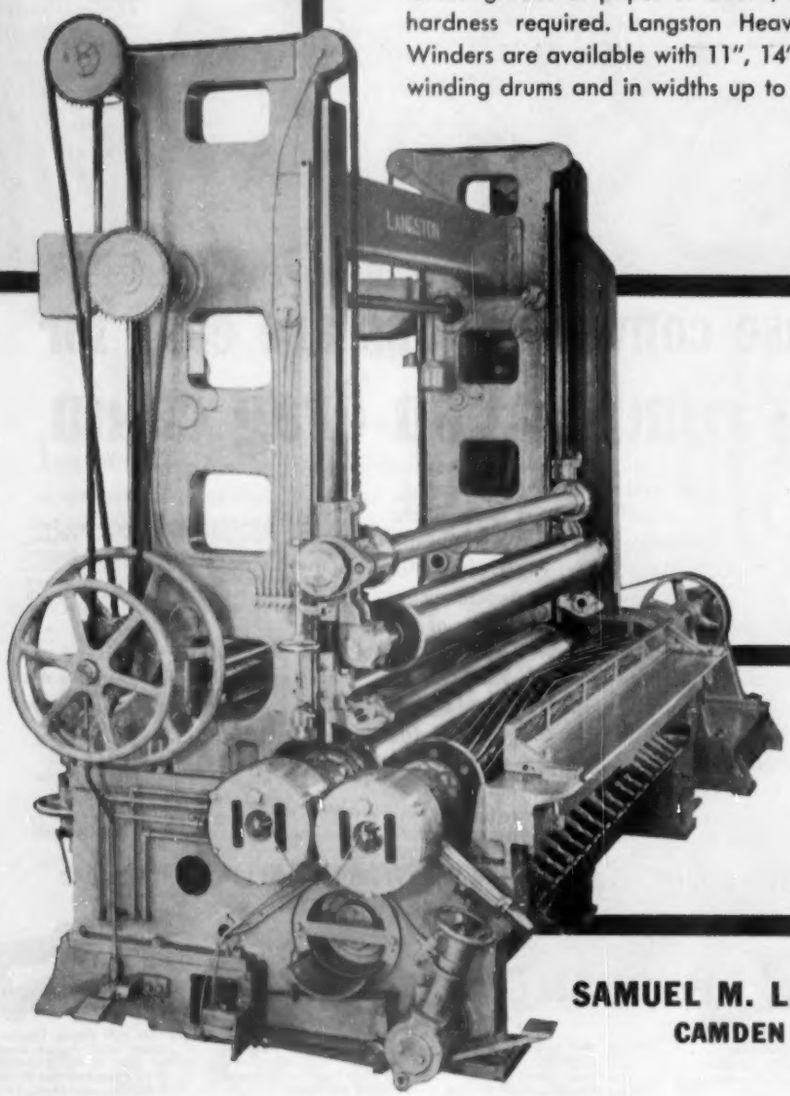
These heavy duty machines permit operating speeds of 3500 feet per minute and higher.

Equipped with "V" belt drives for winding drums, driven slitter shaft, and the top pressure or riding roll, all main drive gears are eliminated. Rear winding drum is equipped with a variable pitch "V" belt so that the relative speed between the two winding drums can be adjusted to suit grades of paper or board, and roll density or hardness required. Langston Heavy Duty Mill Type Winders are available with 11", 14" and 18" diameter winding drums and in widths up to 198".



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The individuals shown above are brown in summer and white in winter. This is okay with them—for it means *protection*. If they could speak, they would undoubtedly say: "There's nothing like a coating that works to your advantage."

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Start to write now!

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1st	$1000
2nd	$ 750
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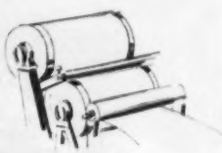
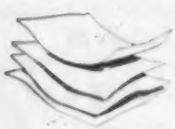
Our Amijel Brand Corn Starches are thick-boiling, pre-gelatinized starches highly preferred because of their increased cold-water dispersibility. They are widely used in the manufacture of specialty boards and papers of high quality.



SURFACE SIZE

Our Eagle Brand Pearl Corn Starch is a popular starch for surface size. It is a thin-boiling starch of high fluidity. It is recommended for its ease and uniformity of conversion.



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A full line of dextrines and gums is available to meet all bonding and adhesive requirements. Our Lam-o-dex brand dextrines are becoming increasingly popular. Lam-o-dex yields paper board of great strength and durability.

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Our Globe Brand Pearl Corn Starches and Coragum Starches...thicker boiling starches are increasingly popular with manufacturers who require this type of starch. They have short cooking time, make a thicker paste with greater covering power and have increased adhesiveness.

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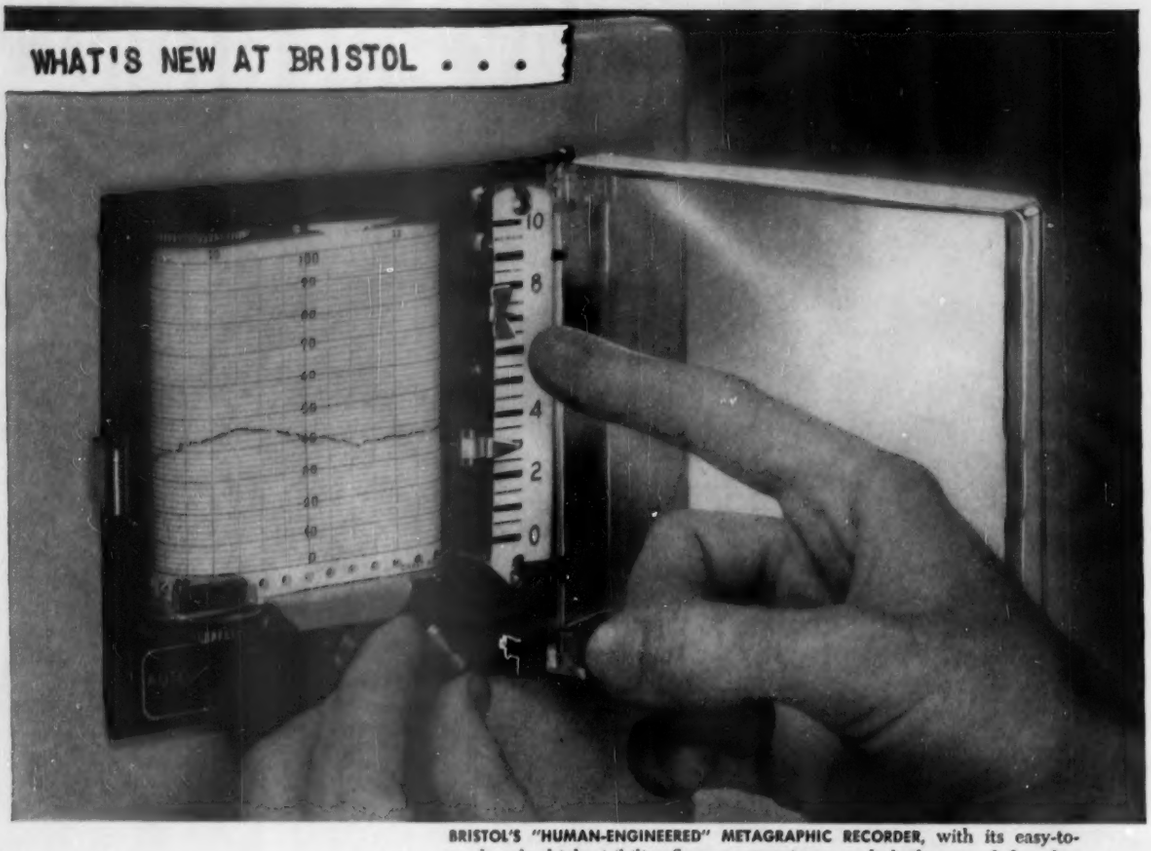

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Instrument men call Bristol's METAGRAPHIC Recorder

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SIMPLICITY . . . fewer moving parts, fewer adjustments, and less service required. Range changes can be made in seconds. True plug-in service.

CONTINUOUS VALVE-POSITION INDICATION . . . separate from set-point indication, gives continuous data on control valve position and level of process operation. No switching is necessary in order to get reading.

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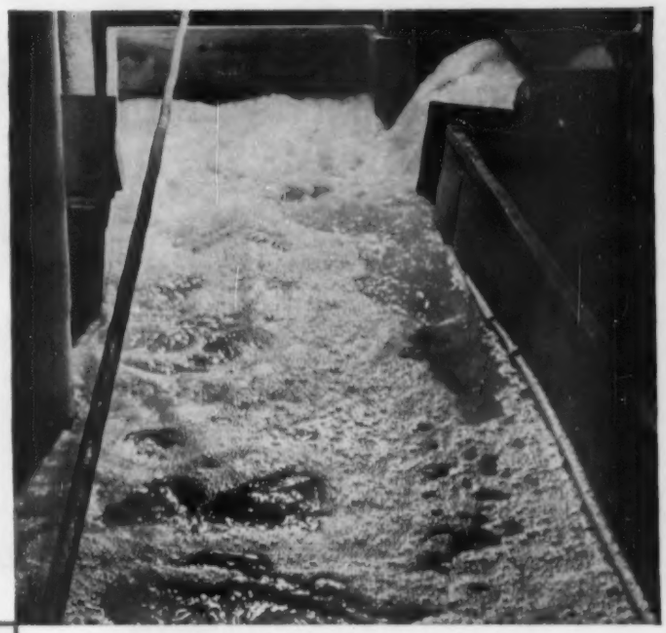

STOCK PUMP BINDING

FOAM AT THE SCREENS

FOAM IN THE HEADBOX

FIBER FLOCCULATION

FOAM AT THE MIXING BOX

FOAM IN THE WIRE PIT

BEATER SWELLING

FOAM SPOTS IN THE PAPER

FOAM AT THE SEAL BOX

FOAM AT THE SAVE-ALL

FOAM IN THE VATS

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Along with this important new low-foam advantage, Mersize—the original fortified size—gives you the same high sizing efficiency and low sizing cost for which it has long been accepted in leading mills across the country.

To learn first-hand how new low-foaming Mersize can greatly improve operations in *your* mill, order a tank car for use under your own production conditions. MONSANTO CHEMICAL COMPANY, Merrimac Division, Boston 49, Mass.

Mersize: Reg. U. S. Pat. Off.

MONSANTO

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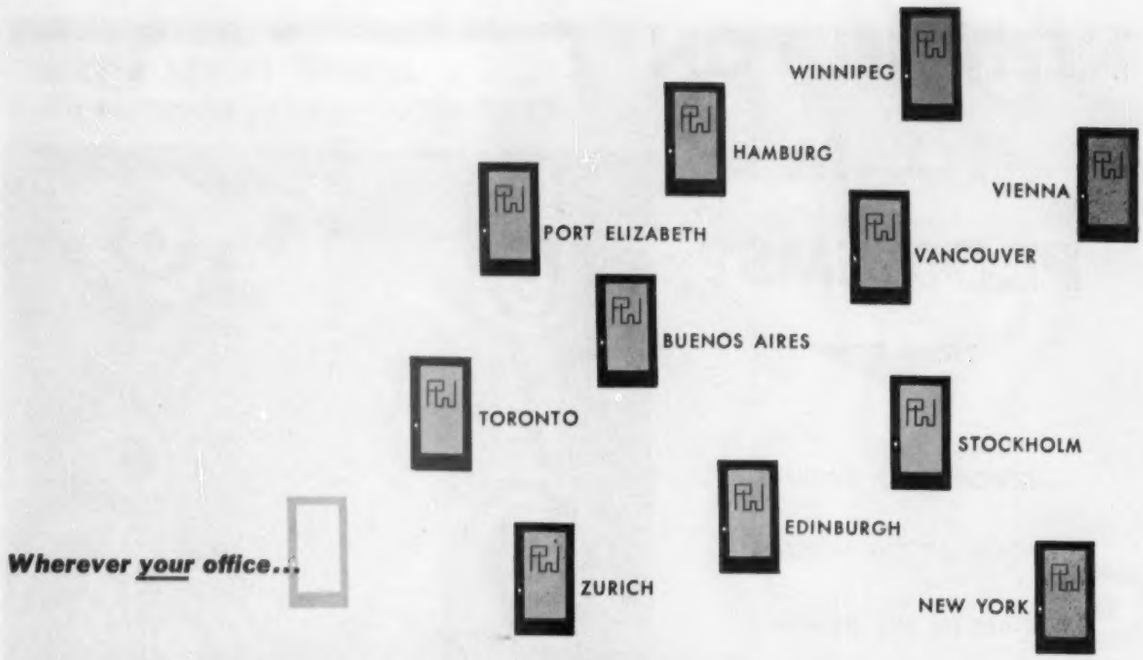
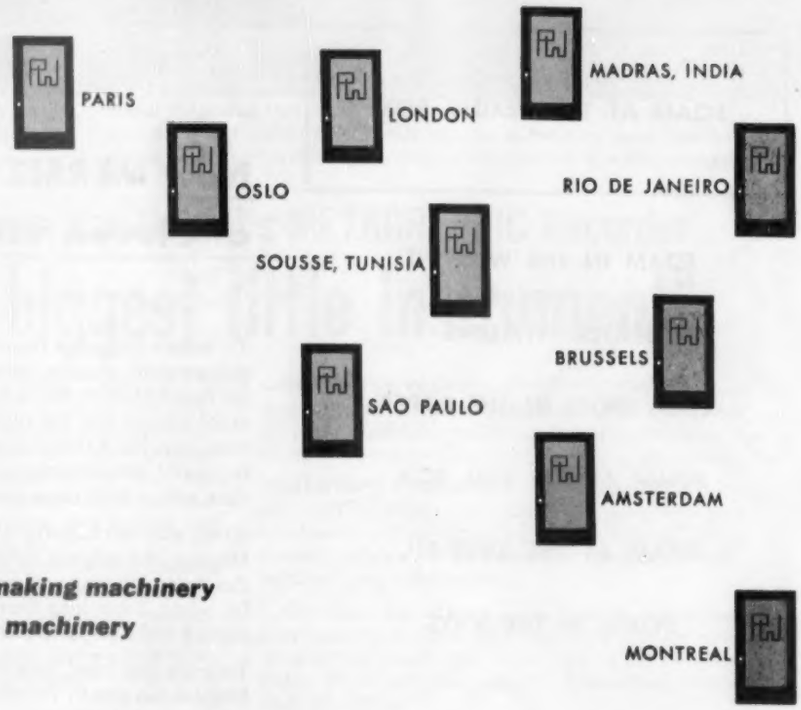


there's a PARSONS & WHITTEMORE office "next door"



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PUMPING 10%-17% PULP

IMPCO

SERIES - 300*
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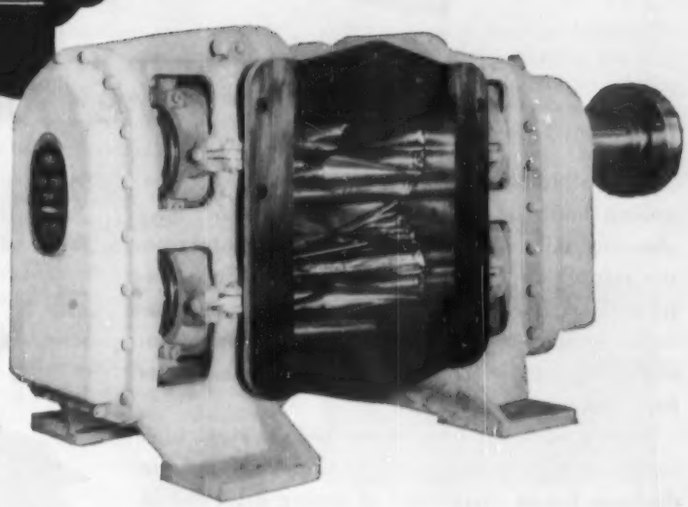

This unit is a positive displacement type pump specifically designed to handle pulps at high densities. The conical profile of its synchronous rotors permits the pumping of stock at densities above 10% A.D.—with lowest horsepower per ton—and no fibre damage. Truly the modern way to handle all types of pulp.

***Tons per day**

IMPROVED MACHINERY INC. J-35

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Sherbrooke Machineries Limited manufacture similar equipment in Canada.

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MIRROR-FINISH

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What's more, these knives are made to rigid, high standards of uniformity and accuracy, not only in thickness but in straightness of cutting edge, end to end. Made of Simonds own S-301 Steel, you can bank on "Red Streak" Knives for straighter, smoother cuts, for more cuts between grinds, for long, trouble-free service. Buy through your Simonds dealer.

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The first alloy-lined kraft pulp digester for Crown Zellerbach Mill at Port Townsend, Washington. When erected, it is 22 ft. total height, 11 ft. in diameter. Wall thickness is 15/16" and 31/32". Design pressure: 150 psi; temperature: 338° F.; weight: 62,300 lb.

the sulphate digester that

A. O. Smith **pre-testing** prescribed

There was no experience data on corrosion resistant lining for kraft digesters before 1945, when Crown Zellerbach found it necessary to replace a line of digesters in their kraft mill after a change in pulping material was forced upon it.

A. O. Smith's wide experience in building alloy-lined pressure vessels for oil refineries was called upon to help solve the severe corrosion conditions that faced this mill.

An intensive laboratory and field test of stainless steels and carbon steel was conducted for two years. Samples were exposed to the corrosive liquors and vapors in digesters at the mill and then studied for determination of corrosive rates. Other samples were given accelerated corrosion tests in both white and black liquors imported by the A. O. Smith laboratories. Operating conditions were simulated and these tests conducted simultaneously with the field tests.

One of the alloys was proved superior by these tests and was selected as the lining material for digesters to be built in the A. O. Smith vessel shops. Seven digesters, like the one shown above, were built for the new line and each was shipped in three sections to facilitate installation at the mill.

A. O. Smith cooperated with the paper manufacturer not only in erecting and welding the sections together, but also in developing equipment for stress-relieving the welds and by instructing mill personnel in maintaining the lining and in evaluating corrosion rate of the vessel during periodic inspections.

Our research and engineering groups, backed by unparalleled accumulated data on corrosion resistance problems in the paper industry, are always available to assist you in the solving of any digester or other vessel problems. Inquiries receive prompt and expert handling.

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Flanged Ends
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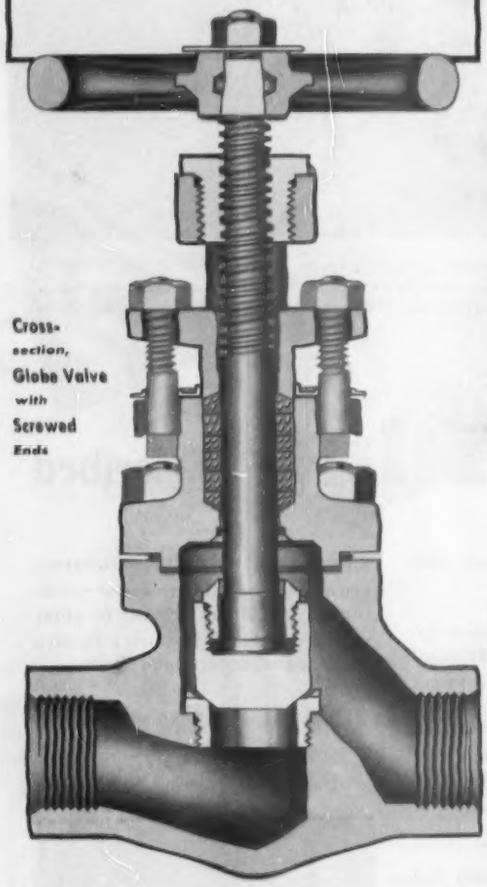
Screwed Ends
Globe and Angle Patterns

chlorine valves



Cross-section, Globe Valve with Screwed Ends

now regularly available with screwed ends and flanged ends

Take your choice of patterns in these Crane chlorine valves. They're *Crane Quality* throughout—designed exclusively for water-free chlorine gas or liquid up to 300° F.

In the cross-section you can see their strong, rugged construction—and the narrow bearing 45° taper disc and seat design that provides positive closure. Corrosion-resistant materials are used at all critical points. Disc, body seat ring and disc stem ring are durable Hastelloy "C." The stem and the gasket at the leak-proof bonnet joint are Monel. In the extra deep stuffing box there's laminated packing specially developed for chlorine service.

You're better equipped for chlorine control with Crane chlorine valves. Sizes ½ to 2-inch.

FULL FACTS are in new 4-page folder AD 1976. Write direct or ask your Crane Representative next time he calls.

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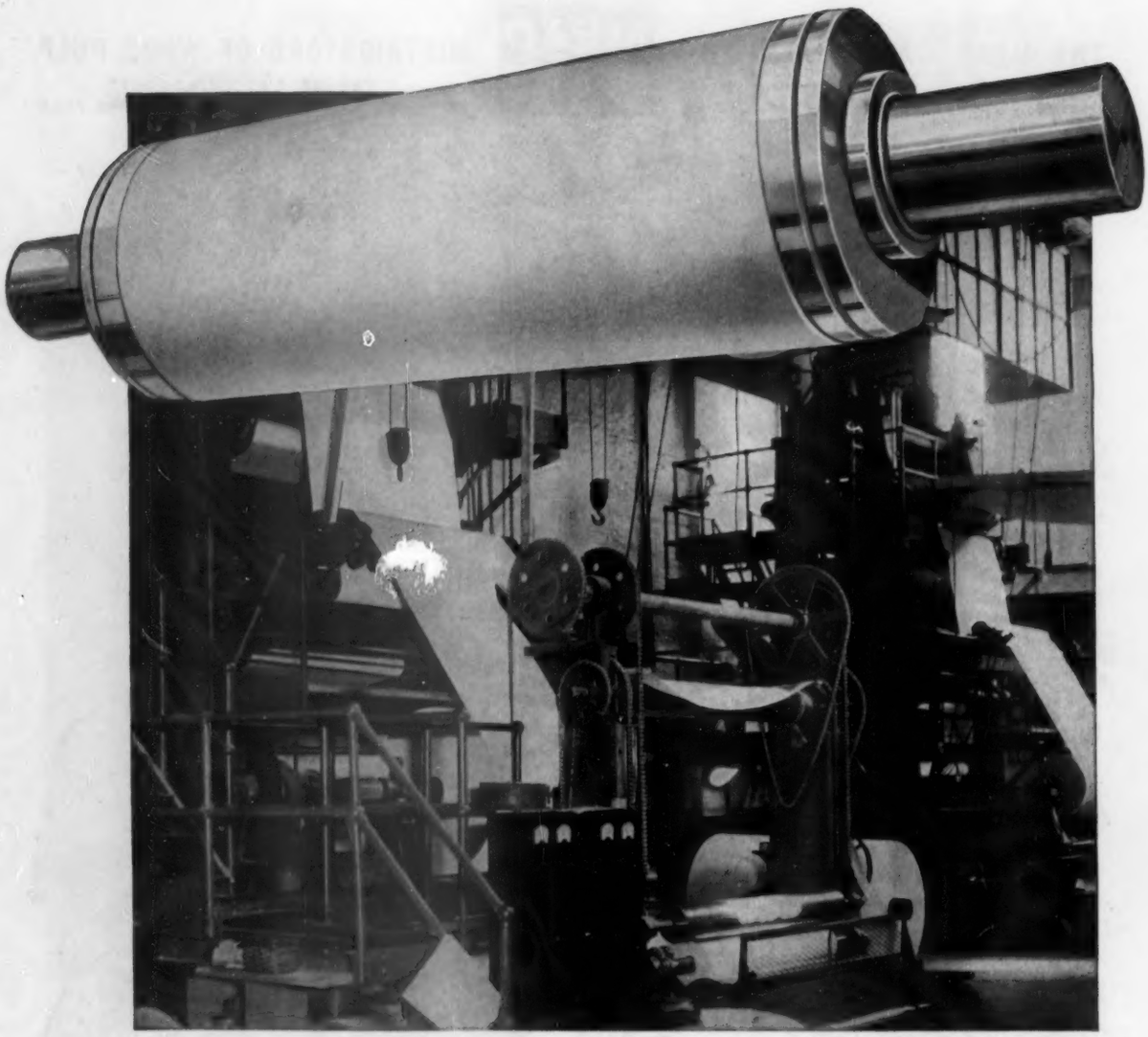

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There's less worry and less work for machine tenders when the calendering is *right!* Here is the final step in the production of the sheet . . . the pay-off for a mill's investment in plant and equipment.

That is why so many leading paper mills put Butterworth Rolls in their calender stacks. Butterworth Rolls, made in a new modern plant, using the finest long staple cotton or paper, are *right* by every test.

You can notice the difference in the quality of the paper — smooth, creaseless, hour after hour . . . day after day. Butterworth Calender Rolls are furnished new or refilled for coated, super, glassine or embossing. Let us quote on your requirements.

For full information, write or call H. W. Butterworth & Sons Company, Bethayres, Pennsylvania — 187 Westminster Street, Providence, Rhode Island — 1211 Johnston Bldg., Charlotte, North Carolina

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ADDS DOLLARS
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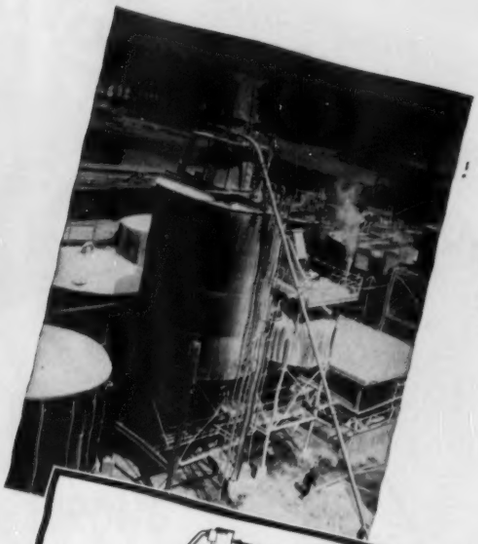

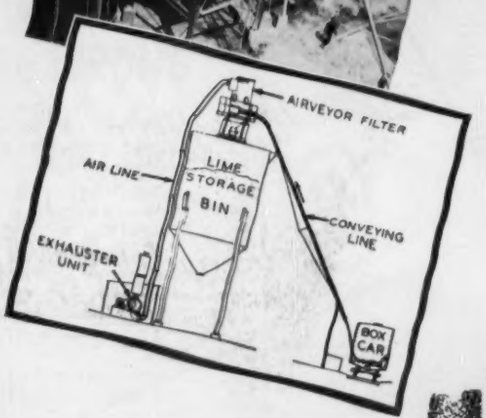

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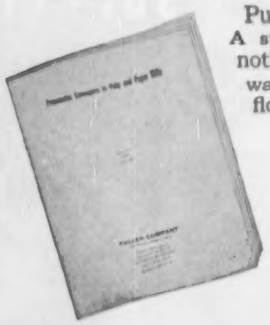
Put your conveying problems squarely up to Fuller. A study of your conveying operations will cost you nothing . . . may well be your first step forward toward consistently profitable operation and a smoother flow of production.



Write for reprint of article, "Pneumatic Conveyors in Pulp and Paper Mills", presented at the Sixth Engineering Conference of TAPPI, Oct. 17, 1951.

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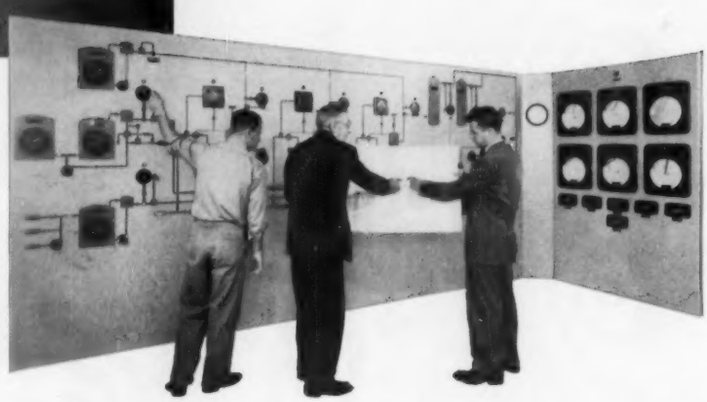

Why have the great majority of new and modernized mills turned to Foxboro to engineer and supply complete process control instrumentation?

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*Buckeye Cellulose Corp.
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Calhoun, Tenn.
*Ketchikan Pulp Co.
Ward Cove, Alaska
Riegel Carolina Corp.
Acme, N. C.
*Under construction

Brown Co.
Berlin, N. H.
Southern Paperboard Corp.
Port Wentworth, Ga.
Macon Kraft Company
Macon, Ga.
Weyerhaeuser, Pulp Div.
Longview, Wash.
Weyerhaeuser, Pulp Div.
Springfield, Ore.
Marathon Paper Mills of Canada, Ltd.
Marathon, Ont.

Long-Lac Pulp & Paper Co., Ltd.
Terrace Bay, Ont.
Columbia Cellulose Co., Ltd.
Watson Island, B. C.
Sorg Pulp Co., Ltd.
Port Mellon, B. C.
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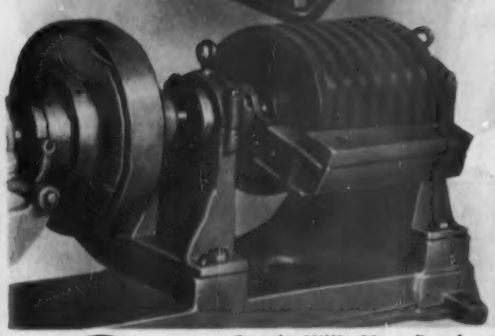

The Sandy Hill Selective Drive

All Sandy Hill Selective Drives were installed and started up and *are still running without structural or functional failure.*

This reflects the attitude of the company's designers in designing *adequately for paper machine operating strains. It reflects the* Sandy Hill designers' knowledge of paper mill operating conditions *which the drives must meet in order to function without failure or* annoyance to the user.

Sandy Hill does not build a cheap drive because it believes that a drive which will last over a long period of years with no more *attention than adequate inspection and lubrication is the most* economical per ton of paper made.

Features

Unvarying draw between sections.

Fineness of draw regulation.

Simplicity of design that keeps maintenance within the ability of the good paper mill millwright.

Power saving and low first cost to a degree hitherto unknown.

No detectable slippage due to the V-belt feature of the drive.

Saving in space, no basement or mezzanine needed for line shaft.

Write on your company letterhead for further information about an adequately designed drive.

Sandy Hill's New Brochure of Pulp and Paper Making Machinery is available on request.

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What is all this talk about service?

Above left to right: Norman C. Gould, Chief Felt Designer; Paul G. Mansuy, Assistant Sales Manager; Irving H. Peters, Manager of Field Service Engineering; Harold S. Dahlberg, Director of Research and Development.

Almost everybody promises "service." But **SERVICE** is more than a word—and it's more than a promise!

SERVICE is a **PRACTICE**, spelled out in **WORK**.

Over the years Huyck has offered and practiced a *complete service to papermakers*...service proven by these facts:

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HUYCK salesmen have an extensive papermaking background plus thorough training in felt manufacturing.

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HUYCK performs continuous research to advance the science of papermaking through improved felt manufacture.

This is the finest service record in the industry. It is not just a word, not just a promise, but a fact...a record you can depend on.

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It Took 2 Years — Map Shows Community Relations Forums — PAPER WEEK Will Hear How Eleven Regions Were Organized

MAJOR HIGHLIGHT of a Paper Week program at New York's Waldorf-Astoria will be reports by Dwight J. Thomson, Champion Paper and Fibre vice president and chairman of APPA's community relations committee, and Donald Rochester, secretary of the committee, on the progress made in organizing community relations forums throughout the U.S.

These reports will show the organization of 11 regional forums embracing 974 mills (listed in box on map) and the active functioning of these groups in developing programs and exchanging information.

This industry is the first to accomplish this, and other industries are watching with interest.

New activity of the community relations committee to be announced by Mr. Rochester is a quarterly News Letter to be issued from his office. This News Letter will cover new programs and ideas on community relations developed by individual mills throughout the country, and will be distributed to all mills encompassed in the program. It will contain ideas developed in use of house organs, guided tours, Christmas parties, company picnics, participation in community activities by company employes, etc.

Further progress also will be made at Paper Week in coordinating the community relations programs of both APPA and the National Paperboard Association, as was announced exclusively in PULP & PAPER last month. This was a result of discussions between the APPA leaders and Marvin Swaim, first vice president of Alton Box Board Co. and president of NPA. It is expected to lead to elimination of duplication of committees and personnel responsibilities.

NEW AND FUTURE CONSUMERS CHIEFS

DAVID C. KNOWLTON (left), President of Knowlton Bros., Watertown, N.Y., steps down from Presidency of Pulp Consumers, and, according to tradition, he will be succeeded by CARLTON W. SMITH (right), President of Moraine Paper Co., West Carrollton, O., and of American Envelope Co., Miamisburg, O.

'54 Market Pulp Demand will Match '52 Forecast to be Heard at PAPER WEEK

DEMAND FOR MARKET PULP may decline as much as 5% to 15% from 1953 levels during the current year, Reed R. Porter, secretary and treasurer of the Association of Pulp Consumers, is expected to predict in his annual report during Paper Week. This would place market pulp consumption for 1954 in the neighborhood of the 2,252,000 tons consumed during 1952.

If present trends continue, the 1954 consumption picture will show increased use of bleached and semi-bleached sulfate, but accompanied by a decrease in the demand for unbleached sulfites and sulfates. In this respect, Mr. Porter will show the consumption rise of bleached sulfate market pulp from approximately 138,000 tons in 1946 to over 620,000 tons estimated absorbed by the market in 1953 —making this item account for almost one-quarter of total market pulp consumption. From a former position of 31% of the total, unbleached sulfite during the same years has dropped to less than 15%, and unbleached sulfate from 21% to 15%.

The three mills which have added about 260,000 yearly tons to the supply of market bleached sulfate which came into

production in 1953 include MacMillan & Bloedel at Harmac, B.C.; Weyerhaeuser Timber Co. at Everett, Wash.; and International Paper Co. at Natchez, Miss. The year also saw market pulp sulfite increases of about 140,000 tons from new capacities in Canada.

Another trend to be emphasized by Mr. Porter is that toward integration, and the continued decline of the percent of total consumption of woodpulp by non-integrated mills. It is estimated that non-integrated mills consumed only 8% during 1953 as compared with 9.9% in 1950 and 9.7% in 1951; and their consumption of the market woodpulp dropped from 65.6% in 1950 and 66.7% in 1951 to an estimated 63.9% in 1953 (this latter estimate is based on 9 months figures of Bureau of Census).

The annual meeting of the Pulp Consumers is scheduled for Feb. 17 at New York's Waldorf hotel, with the annual reception and luncheon the following day. David C. Knowlton, president, will complete his two-year term at that time, and the traditional pattern calls for Carlton W. Smith, Moraine Paper Co., and first vice president, to succeed to the presidency.

PAPER WEEK PREVIEWS

New Industry Leader

DONALD S. LESLIE, whose advancement to President and Gen. Mgr. of Hammermill Paper Co., through the ranks and various key positions of that company since 1928, including being a former General Superintendent of operations, has been "groomed" for the high honor and high responsibility that will come to him at Paper Week in New York. He is slated to succeed Sydney Ferguson as the President of the American Paper & Pulp Association. Thus, in mid-February, the leadership of this industry moves to eastern Pennsylvania. Don Leslie has been First Vice President of APPA.

Pulp Producers Head for PAPER WEEK— Here's What They Will Be Talking About

L. K. LARSON—"A sound *export trade"—he offers* PAPER WEEK for discussion.

THE U.S. PULP PRODUCERS ASSOCIATION will devote itself to studies of the national economy and the future outlook, during Paper Week; the place occupied by the woodpulp industry in the economy; and the effect economic re-adjustment will have during the current year and those immediately to follow. Dr. Charles Roos, president of the Econometric Institute Inc., will lay the main groundwork for the discussions to be held in closed session.

Some statistics which will supply basis for much discussion follow:

U. S. Woodpulp (Total)

Tons

	1952	1953 (Est.)
Production	16,464,000	17,660,000
Imports	1,938,000	2,165,000
Exports	212,000	148,000
New Supply	18,190,000	19,677,000

U. S. Market Woodpulp

Tons

	1952	1953 (Est.)
Production	1,849,000	1,790,000
Imports	1,397,000	1,580,000
Exports	212,000	148,000
New Supply	3,034,000	3,222,000

In a statement of position of the North American woodpulp industry made by L. K. Larson, Weyerhaeuser Timber Co., in mid-1953, and generally considered as an official expression of the Pulp Producers, he pointed out that North American expansion for production of market woodpulp is exceeding the rate of increase of capacity for production of own use pulp.

This means, he said, that "the next phase in the development of the North American pulp and paper industry, now that the goal of self-sufficiency has been reached, should be the emergence of a soundly-based export trade. The success of this endeavor will depend primarily upon the ability of the North American industry, in the future, to meet Scandinavian competition in Old World markets."

In view of this statement, domestic producers may be expected to spend considerable time during Paper Week discussions going over the fact that rather than gaining in world markets during 1953, they actually lost. And this loss applies to the North American continent as a whole, since it is indicated that Canadian exports to other than the U.S. market have dropped to some extent during the year.

PAPER WEEK Will Hear These Facts

E. W. (Ted) TINKER—he is ready to give industry sensational facts about extent of its pulpwood business.

ONE OF THE HIGHLIGHTS of Paper Week in New York in February's third week will be a report of an American Paper & Pulp Association survey which reveals an amazing role played by this industry in forestry and pulpwood production.

Even in this industry and in federal and state agencies which are close to the activities, the data that will be presented will be startling.

Here is an advance glimpse of some of the sensational facts gathered under direction of E. W. (Ted) Tinker, executive secretary of the association and himself a former U.S. forester in the Lake States. It shows there is a big field in this industry for qualified foresters. It also shows the industry is on a sound footing for continuing wood supply for years to come:

This industry (U.S.A. only) owns or holds under long-term leases 28 million acres dedicated to pulpwood production.

It employs 1,233 professional foresters.

Nearly one-third of these foresters are dedicated to promoting good forestry among small land owners.

There are 26 tree nurseries in U.S. which are owned and operated by pulp and paper companies.

These nurseries have an annual capacity of 89 million seedlings and distribution to small land owners totals 31 million trees per year.

Over 488,000 acres of company owned lands have been planted and 109,000 acres seeded.

The industry is spending about $5,000,000 per year for fire protection in the forests.

Which all adds up to this fact—pulpwood production is a successful "big business" in this country, which is growing more trees today than it was 25 years ago! And the program is still growing—in size and in intensity.

Sheehy Talk on Safety Will Feature PAPER WEEK

Complacency of top management toward safety programs will be needled by James T. Sheehy, executive vice president, Rayonier Inc., at the open industry session of APPA during Paper Week. Mr. Sheehy will call for an honest facing of the facts on safety, and question that the industry's progress is good when it is viewed in comparison with other industries such as chemical and steel.

Adams' PAPER WEEK Talk to be Timely

SHERMAN ADAMS, the assistant to the President, White House, Washington, D. C., told PULP & PAPER as this issue went to press that he is going to prepare the feature address he will make during Paper Week only a short time before the big banquet meeting in New York's Waldorf on the evening of Feb. 18.

He desires that his talk, dealing with the program and the progress of the Eisenhower administration, will be as timely as possible and he said, "I want to see what developments are in the interim."

He referred, of course, to the launching of the new session of Congress and its reactions to the President's program, on which he worked very closely.

The leadership of APPA feels strongly that next to President Eisenhower himself, they could not have chosen a speaker better able to present the facts about the administration. A month before the banquet, there were several hundred reservations already made, at $20 a plate, for the annual event in the plush and scarlet-draped main ballroom of the Waldorf.

Governor Adams (still addressed by associates by the title he bore as chief executive of the state of New Hampshire) said he was very pleased with the story which PULP & PAPER ran about him a year ago, headed: "ADAMS IS A PRODUCT OF THIS INDUSTRY."

The article pointed out that Governor Adams at one time thought that his lifetime career was going to be in the New England woodpulp and paper industries.

It said: "He might have had preferred stock ownership in the paper industry—but instead he is assistant to the President."

It recorded that Mr. Adams, now 53, was born in East Dover, Vt., son of a grocer. He graduated from Dartmouth College, Hanover, N. H., and went to work as a log scaler and a clerk in a Vermont logging camp. He became woods superintendent in 1923 for Parker-Young Co., Lincoln, N.H., pulp and lumber firm, which was the predecessor company to the present Franconia Paper Co.

SHERMAN ADAMS—a new picture of the Assistant to the President—"A Product of This Industry"—He says his talk during PAPER WEEK is intended to be timely, with reference to latest developments in Washington.

Mrs. Adams Will Save Article

The youthful Mr. Adams thought he was in his life work, and for 17 years it looked like that was it. It is conceivable that if he stayed on, he would be a pulp and paper executive of northern New England today.

But his neighbors and friends in Lincoln persuaded him to go into politics. The pulp and lumber workers of Lincoln switched from their traditional Democratic party to vote for him. He went to Congress and in 1948 was elected Governor.

While he was a Parker-Young superintendent, that company was making high grade manilas and later sulfite bond. A flood washed out its dam and that led to a financial shock it never recovered from. But it was after he was gone that it was acquired by Marcalus Mfg. Co., and in 1950 was sold to Franconia Paper Co.

Governor Adams was genuinely tickled about this story about his early days in this industry. He said:

"Mrs. Adams will probably want it for the scrapbook."

The industry leaders generally were disappointed in the address made at the dinner last year by Senator Capehart (R.) of Indiana. Many of them expressed the view afterward that he had come ill-prepared, had made a typical political speech and told them nothing they did not already know. They are confident Governor Adams will put the annual dinner back on the high plane that was intended for it.

TAPPI RESERVES HONORS FOR THESE TWO

CLIMACTIC EVENTS on PAPER WEEK program at Hotel Commodore in New York will be re-election of GEORGE PRINGLE (left), to a second term as Tappi President, and awarding at Feb. 17 luncheon of Tappi Gold Medal to G. W. E. NICHOLSON (right). It is interesting that both came to U.S. from Canada; both were leaders of Tappi's biggest Engineering Division, and were founders of the Engineering Conferences. Mr. Pringle was Chief Engineer for all Mead Mills, now is Vice Pres. in charge of all Mead White Paper Operations with special current responsibility over Kingsport, Tenn. Mill. He lives in Chillicothe, O. Mr. Nicholson is Exec. Vice Pres. of Union Bag and lives in New York. He formerly was Res. Mgr. of its Savannah Mill and he is "Father" of Tappi's active Southeastern Section.

PAPER WEEK PREVIEWS

See Pulpwood Section for More

Open Meeting Will Be Held on Starlight Roof Again

Once again the popular Open Meeting of the American Paper & Pulp Association will be held during Paper Week—on the Starlight Roof of the Waldorf at 9:45 a.m. Thurs. Feb. 18. Speakers this year:

Sydney Ferguson, chairman of Mead and president of APPA—his annual report on the state of the industry.

Reuben B. Robertson Jr., president of Champion—on the industry's part in national affairs. He has served lately on several important assignments in government relations.

James T. Sheehy, executive vice president of Rayonier Inc.—on management's role in safety.

Dr. Heuser, Renowned Cellulose Authority, Dies

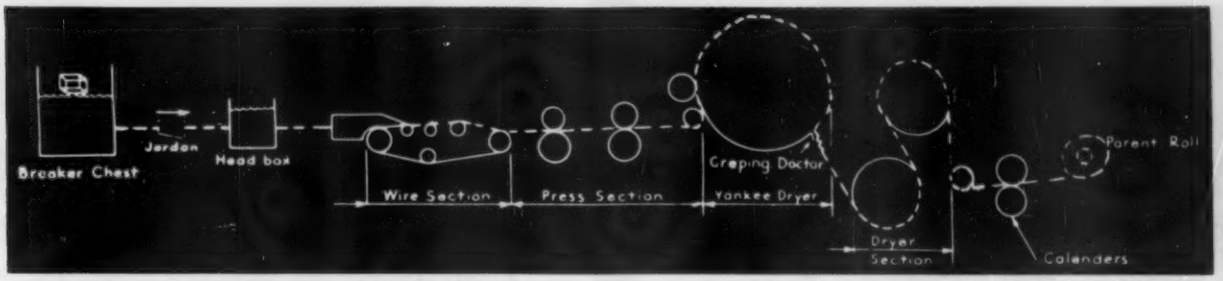
Dr. Emil Heuser, outstanding world authority on cellulose, died at the age of 71 Dec. 24, at his home in LaJolla, Calif. He was research associate emeritus of the Institute of Paper Chemistry, and many Institute graduates all over the U.S. and in other countries studied under him while he was its group leader of cellulose chemistry from 1938-1947.

One of his most recent industry contacts was lecturing to seminars in Seattle and Portland, Ore., for young technicians in the Coast mills, and he has addressed technical meetings all over the country.

Born in Stralsund, Germany, Dr. Heuser was professor of cellulose chemistry at Darmstadt University 1912-1923, and honorary professor at Berlin Technical University after publishing his monograph Lehrbuch des Cellulosechemie. He first came to the New World in 1926 as research director for Canadian International Paper Co. His widow and three sons in the U.S. and one in Germany survive.

RILEY JOINS DAN CHARLES AGENCY; VAN ALLEN SUCCEEDS HIM AT POWELL

ALEXANDER VAN ALLEN (left), new Gen. Supt. of Paper Mills, Powell River Co., succeeding Fred Riley, was born in Alberta and graduated from Univ. of British Columbia. FRED RILEY (right) who retired post he held many years at Powell River, will remain there temporarily as advisor in installation of couch transfer on No. 8 machine, and then will join Dan Charles Agency, of Seattle, traveling for that manufacturers' representative firm.



SCOTT HAS AND IS INSTALLING WORLD'S FASTEST MACHINES IN EVERETT, WASH.

SCOTT'S HIGH SPEED tissue machines, such as the two new ones at Everett, always look different and unusual, even to experienced papermakers because a lot of Scott's own patent processes and operations go into them—for instance the direct inlet nozzle to wire, instead of conventional inlet. This drawing, taken from the company Dec. 1953 report, shows the process from breaker chest to last operation where paper is formed into parent rolls.

Biggest Sulfite Mill Expands to Over 700 Tons

ALREADY THE LARGEST sulfite pulp mill in the world, the capacity of Scott Paper Co.'s Soundview Division at Everett, Wash., is presently being increased from about 615 tons per day to about 720 tons daily of bleached sulfite.

Soundview's production was estimated at 215,000 tons of bleached sulfite for the year 1953, of which about 50 percent was consumed by Scott paper mills and the balance sold to others. "Substantial" sales will continue in 1954.

Those facts were among highlights on Scott Paper Co. recorded in its Dec. 1953 report—subtitled "A Growth Company in a Growth Industry." As to the future, it says:

"Neither Scott nor Scott and its competitors have ever approached the full market potential of any product in Scott's line (toilet and towel, facials, waxed, etc.). There are even greater potentials in the export field . . ."

Thomas B. McCabe, still president, assumed that position in 1927 at the age of 33. Since then company sales have declined, only moderately, only three times —1932, 1933 and 1943. Paper product sales increased 140 percent from 1927-37, 312 percent from 1937-47, 160 percent from 1947-1953 (estimated). Sales were $121,-091,985 for nine months of 1953, $146,902,-536 in all of 1952, after acquisition of Soundview.

Scott announced plans to continue sale of market pulp after the Soundview expansion. But it will also use more of this pulp for Scott started up in early December in Everett the largest and potentially fastest tissue machine ever built—a 206 in. wide, 380 ft. long Beloit Yankee with General Electric drive. A second big machine is being installed alongside it.

Made 420,000 Tons of Pulp in 1953

Total pulp produced by Scott in 1953 was estimated at 420,000 tons. This supplied 80 percent of Scott's own requirements, and the other 20 percent was purchased from longterm suppliers or by spot purchases. It left "substantial" quantities to be sold.

Outside of Soundview, its biggest supply increase was at Brunswick Pulp & Paper, where capacity was boosted to over 450 tons a day of bleached kraft. Sharing half with Mead, Scott secured about 80,000 tons from Brunswick in 1953.

A purchaser of a share of Scott common at the 1948 low of $40 now has two shares worth about $70 each. His cash dividends yield on original investment jumped from 5.7 to 15 percent.

Making tissue at Everett for Coast customers saves more than $40 per ton.

The two-machine paper mill and converting plant being added at Everett will cost only around $23,000,000, called "something of a record." The job is well ahead of schedule, a tribute to Scott engineers who "follow through from day to day not only at location but at plants of those supplying machinery and equipment." Scott still has not decided whether it will take accelerated amortization which it was granted.

A new converting plant at Marinette, Wis., in late 1953 replaced one a mile away from the mill.

A new mechanical development office and supporting laboratory buildings are under construction at Chester, Pa., the home operations. Prototype machines and pilot plants for mechanical development will be housed here.

Scott has spent over $20,000,000 for advertising since 1946. Goodwill is carried on the company balance sheet at $1.

Interesting was the comment that the executive staff of Scott averages only slightly over 52 years of age, the mill and sales manager groups only about 45.

Subscriptions of 2,300 employes to a 1953 shareholders plan totalled $800,000 and the company contributed $160,000. In addition it awards a common share to each employe for every 5 years' service.

British Columbia Talks of 6 New Mills With U. S. Money Eyeing Prince George

UNITED STATES capital is reported interested in a new pulp mill project in the Prince George district of British Columbia, according to E. G. Rowebottom, deputy minister of trade and industry at Victoria, who reports "a Portland lawyer" is now in the East arranging suitable financial arrangements.

It is understood the group involved proposes an outlay of about $20,000,000.

Prince George has long been regarded as a favorable site for the industry as it is in the heart of a well-developed forest area and has easy access to an abundance of water and hydro-electric power, as well as rail facilities east across the Rockies, west to Prince Rupert and south to Vancouver. It might also tie into the proposed natural gas pipeline from Peace River.

Westminster Paper Co. planned to undertake construction of a mill at Prince George in partnership with another company, but it is stated that interest is not so intense as it was a few months ago.

Western Plywood Co., Vancouver and Quesnel, is interested in establishment of a chemical pulp mill at Quesnel Lake, some 70 miles east of Quesnel, although President John Bene told PULP & PAPER that he did not anticipate an actual start would be made during 1954. The company has applied for a forest management license for some excellent pulpwood timber.

Mr. Bene's idea is to create an integrated forest industry in the Quesnel district, where his company last year added a sawmill to its plywood operation.

Still undisclosed is the identity of the interests reported by British Columbia Minister of Forests R. E. Sommers to be planning a $30,000,000 pulp mill on Vancouver Island, near Duncan or Victoria.

General expectation is that within a year definite plans for expansion of the Elk Falls Co. operation at Duncan Bay will be announced by Crown Zellerbach Corp., parent company. Another probable development of the coming year is finalization of plans for Kitimat Pulp & Paper Co., in which Powell River Co. and Aluminum Co. of Canada are interested.

Still farther ahead is the prospect of a mill utilizing power likely to be created during the next few years near Tulsequah, close to the Alaska-Yukon boundary. It might be decided to build the mill on the Alaska side if arrangement can be made for diversion of power.

TIME TABLE IN THE SOUTH **1954**

(Some startup dates are tentative)

National Container, Valdosta, Fla.	*January.*
Rayonier, Jesup, Ga.	*March.*
Valentine Pulp & Paper, Lockport, La.	*May.*
Bowaters Southern, Calhoun, Tenn.	*April.*
St. Joe Paper, Pt. St. Joe, Fla.	*May.*
Buckeye Cellulose, Foley, Fla.	*June.*
Rome Kraft Corp., Rome, Ga.	*June.*
East Texas Pulp & Paper, Evadale, Tex.	*October.*

8 Mill Startups on 1954 Calendar for South

WITH MAKING OF PAPER at National Container Corp.'s new Valdosta, Ga., mill in January, the South's latest round of production expansion launched in 1951 swings into action. Eight new or greatly enlarged mills are on the 1954 schedule.

Valdosta—The Valdosta site has several advantages: Easy trucking distance from much of company-owned forest lands and other pulpwood sources; unusually favorable natural ponding conditions, including easy stage drops of 150 ft. in five miles; adjacent to Valdosta, a long established southeastern Georgia center and an easy 140 miles from company offices in metropolitan Jacksonville.

Certified in May, 1951, for a maximum of $23,165,000 or not more than 60%, company financing was on the basis of a $25,000,000 cost figure. The 275-acre site is on a hard surfaced state highway route. General contractor is Merritt, Chapman & Scott, Inc., New York. Ground was broken Oct. 26, 1951. Designed capacity is 500 tons daily of kraft pulp, kraft board and kraft paper. Bagley & Sewall furnished the 240 in. (220 in. trim) Fourdrinier capable of 2000 fpm. William T. Webster, company vice president in charge of production, is at Jacksonville. Karl Guest, Valdosta mill manager, brings a ready-made experienced working team from the Jacksonville operation.

St. Joe—Goal of St. Joe Paper Co.'s (Port St. Joe, Fla.) program for which an amortization certificate for $24,010,958 was issued in May, 1951, was to raise rated capacity from 400 tons daily to 1300 tons. A new unit erected alongside the original building now houses a 700-ton per day Pusey & Jones Fourdrinier designed for speeds up to 2000 fpm. The machine trims 220 in. This machine is already in production but the No. 1 machine is in process of being rebuilt.

Already equipped with a secondary headbox, the older machine had produced as much as 435 tons daily over a month's run. Addition of a high pressure dryer section will be a factor in increasing its production to 600 tons daily, and the mill total to 1300 tons. Completion of the overall task is looked for during May.

THEY EXPECT "DELIVERIES" IN JUNE

CAPT. HERBERT KIDD (left), Vice Pres. and Gen. Mgr. of Macon Kraft Corp., which operates one of biggest producing kraft machines in world, is similarly directing planning and construction for the affiliated Rome Kraft Corp., due to start up its new plant in June.

W. F. BOWLD (right), Vice Pres. and Gen. Mgr., Buckeye Cotton Oil Co., subsidiary of Procter & Gamble, is top executive overseeing overall plans for the Buckeye Cellulose Division's first dissolving woodpulp mill at Foley, Fla., also slated for June startup.

Expansion of the St. Joe mill will require an additional 367,500 cords of pulpwood, but the company looks forward to meeting all its wood needs from fee-owned lands located within 100 miles of the plant at some future time. Water for the expended mill is brought by canal 18½ miles from the Chipola River.

Rayonier—Rayonier's $25,000,000 mill at Jesup, Ga., to manufacture purified wood cellulose, bears a projected startup date of March. Initial capacity will be 275 tons, but auxiliary facilities being installed will permit expansion to 400 tons daily. Ebasco Services are engineers and constructors for the project. Thomas R. Stein is resident manager.

Bowaters—On the Hiwassee River, in east central Tennessee, Bowaters Southern Paper Corp. is scheduled to start producing 125,000 tons of newsprint plus an additional 50,000 tons of kraft pulp annually during "the second quarter." Some predictions outside the management say this might possibly be April but more probably May. For newsprint, the two 252-in. Beloit Iron Works Foundriniers will require 360 tons of groundwood and 120 tons of kraft pulp daily. Total kraft pulp, which can be bleached or unbleached, will be 312 tons daily. Each machine will have a General Electric sectional drive and is designed for speeds up to 2000 fpm. J. E. Sirrine Co. is engineering consultant. K. O. Elderkin is general manager; Victor Sutton, mill manager

Listed as a $55,000,000 project, the company received its certificate of necessity in Feb. 1952. Acquisition of forest lands has long since passed the 200,000 acre mark. Calhoun, the mill site town, had 375 population and Charleston, across the Hiwassee, 500 population. Cleveland, an 18,000 bustling center is 12 miles distant; Chattanooga, an industrial center, 30 miles farther.

Valentine—Valentine Pulp & Paper Co., affiliate of Valite, Inc., and Valentine Sugar Co., will start producing dissolving pulp and newsprint (100%) from bagasse

GETTING ACQUAINTED IN THIS INDUSTRY

HERE ARE TWO OFFICIALS of Valite Corp., of New Orleans, photographed by PULP & PAPER while they were attending a recent industry meeting. T. R. McELHENNY (left), is Vice Pres. and Technical Director, *and very much involved in the construction of new* Valite 50-tons-a-day cane bagasse pulp and paper mill at Lockport, La. ALTON S. HALL (right), is Chemical Engineer on the Valite staff in New Orleans. Valite, producer of industrial resins, expects *to start up its new mill in May. They expect to make* some newsprint as well as dissolving or market pulps, using bagasse.

at Lockport, La., in May. The certificate on this mill was for $2,633,200 and cost estimate $3,500,000. Production is to be 17,500 tons annually. Substantial quantities of bagasse are available in the area, which is embraced by the Louisiana sugar cane belt.

Buckeye—Buckeye Cellulose Corp., subsidiary of Procter & Gamble, will start producing 300 tons daily of prehydralized bleached sulfate pulp at its Foley, Fla., mill during June. The application placed the estimated cost of this project at $26,777,735, of which $21,527,735 was covered by the five year 65% ta.: acceleration issued in May, 1951. Sandy Hill Iron & Brass Works furnished the multistage bleaching plant and 180 in. wide pulp forming Fourdrinier machine. H. K. Ferguson Co. and Duval Engineering & Construction Co. are builders; J. E. Sirrine Co., engineering consultants.

This project was initiated with acquisition of 444,000 acres of well-managed second growth pine forest stand from Brooks Scanlon, Inc., followed by purchase of 125,000 acres from a naval stores operator. The mill will also accept offerings of pulpwood from small owners.

Pulp will be sold as a raw material for rayon, plastics, quick drying paints and cellulose derivatives. This market has been served by Buckeye Cotton Oil Co. through its Chemical Pulp Div. at Memphis, Tenn., where cotton linters serve as raw material source. Buckeye, a Procter & Gamble subsidiary, is headed by W. F. Bowld, vice president and general manager. Paul K. Honey is manager of the Florida operation.

Rome Kraft—Also in June the Rome Kraft Corp., a jointly owned subsidiary of The Mead Corp. and Inland Container Corp., will start its 600 ton per day linerboard mill. Located on a 700-acre site 12 miles west of Rome on Coosa River, the mill will be equipped with a turbine-driven Beloit Iron Works Fourdrinier and high pressure dryers. The machine speeds range from 200 to 2000 fpm. Listed as a $25,000,000 project, the mill's certificate covered $21,480,000. The Macon Kraft Corp., at Macon, Ga., is also a joint company of The Mead Corp. and Inland Container Corp.

East Texas—Latest in the year to come into operation will be the East Texas Pulp & Paper Corp., joint venture of Houston Oil Co. of Texas and Time, Inc., the mill site being at Evadale, Tex., not far north of Beaumont. Work was started on the project in spring of 1953. Production is scheduled for late 1954, but favorable conditions might bring startup as early as October. H. A. Simons, Ltd., Vancouver, B.C., is consulting engineer. Beloit Iron Works will furnish a 216-in. trim Fourdrinier.

Major supplies of pulpwood will come from the 683,079 acres of forest held over the years by Southwestern Settlement & Development Co., controlled by Houston Oil Co. The mill is to produce 250 tons of bleached kraft pulp; paper for milk bottles, food containers; board for business forms, file folders, frozen foods. R. M. Buckley is executive vice president and general manager. A. G. Natwick is resident mill mamager.

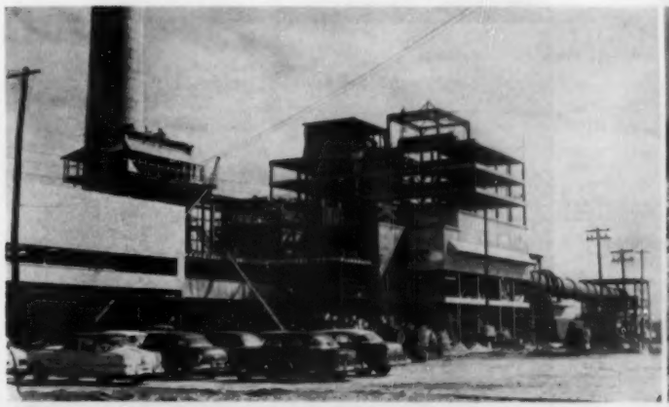
For 1955—For the next year, 1955, Crossett Paper Mills, Crossett, Ark., is already on the list for a new neutral sulfite semi-chemical pulp mill processing, hardwoods to be blended with pine kraft for production of bleached food container stock and allied items. Interest manifested in utilization of hardwoods indicates other companies may follow into the field.

Financial negotiations aimed to make possible a proposed Choctaw Pulp & Paper Co. building near Butler, La., aiming at startup on kraft papers in 1955, also are under way at the present time.

Robert Evans, formerly of Riegel and WPB wartime pulp allocator, is in Shreveport, La., headquarters coordinating Frost Lumber Co. holdings for Olin Industries, but their plans for a dissolving pulp mill near the Arkansas-Louisiana state line appear indefinitely tabled. Also plans for the Southwest pulp and paper mill which is still a "reserve plan" for Diercks Lumber Co.

EX-GOLDEN GOPHERS EXPEDITE GEORGIA MILL

STARTUP FOR RAYONIER'S purified cellulose plant at Jesup, Ga., is sometime in March and among Rayonier executives in the thick of project "battle" are: R. F. ERICKSON (left), Vice Pres. in charge of Engineering and Plant Development, and THOMAS R. STEIN (right), Resident Manager. They are former fellow Minnesotans and engineering graduates of the "Golden Gopher" University in Minneapolis.



MAJOR PULP MILL BUILDINGS ARE NEARLY COMPLETE

IN NEAR-COMPLETED form is Rayonier's new cellulose mill in Georgia, beginning with bleach plant, at left, and extending through power plant, recovery building and lime kiln. Startup is set for about March 1.

RAYONIER GOES FOR FINISHING IN BIG WAY

FIVE-ACRE finishing, storage and shipping building completed by Rayonier. At extreme right is skeleton of pulp mill and Rice Barton machine room seen from top of recovery building.

PULP & PAPER Visits Rayonier's New Plant

PROJECTED STARTING date, March 1, has been set for the $25,000,000, 275-ton pulp mill of Rayonier Inc., at Jesup, Ga., Thomas R. Stein, resident manager, told PULP & PAPER on a recent visit at the plant site.

The two-story air-conditioned office building was completed and occupied by November. A five-acre finishing and pulp storage building was completed in December, shortly after the personnel building, housing lockers, time office and first aid.

Full skeleton for the plant had been erected in November, followed by completion of power plant, recovery, causticizing and bleach plant. Last to go in was the Rice Barton pulp machine and dryers.

Six Stebbins chip silos have been completed, also deep wells, water treatment plant, woodroom, woodyard facilities, and fluming system. Wood collection has begun.

Initially the plant will employ 450. Although rated capacity is 275 tons, the recovery plant will handle 400 tons, and two turbines—5000 kw each—will provide power for additional capacity. Provision for expansion has been maintained in all plans.

WOOD HANDLING: Whiting Trackmobile can switch 2 loaded or 4 empty cars *to any point in the yard—part of mechanical handling system developed by National Container.*

ALLIS CHALMERS lime kiln at right of older installation is a new improved 170 ft. long unit at National Container in Jacksonville.

To Expand, This NCC Mill Builds Up—Not Out

FAR FROM BEING outstripped by its big new brother at Valdosta, Ga., the first kraft pulp, paper and board mill of National Container Corp. at Jacksonville, Fla., is setting records of its own. Built in 1938 as a 200-ton mill, the Jacksonville mill averaged over 426 daily tons during a recent record month (August) and totaled 147,000 tons for 1953—a new production high. And National did this with fundamentally the same plant which started in 1938, and the original 212-in. Fourdrinier.

The increase at Jacksonville has been gradual over the years and is not a result of any defined expansion program. Continued improvement and replacement did it, concomitant with an increase in quality. Because the plant was built on a relatively-small 15-acre site on the St. John's river within the city limits of Jacksonville, the actual building expansion has been up, rather than out.

The gradual nature of the increase in production is seen by comparing the 1953 total of 147,000 tons with 137,000 tons in 1952 and 100,434 in 1949. A good part of the increase can be attributed to increase in "know-how" and management and operating efficiency.

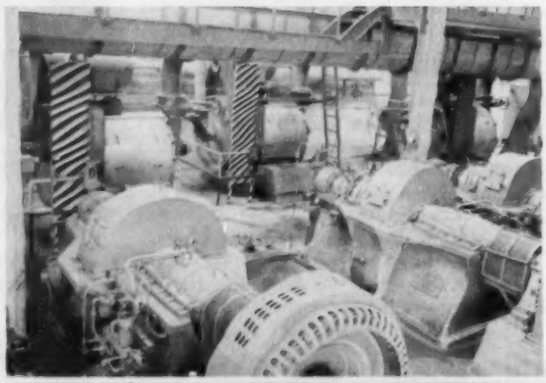
Some of the more recent changes in the physical plant are:

Stock Preparation: Big recent change here was installation of three new Cowan screens to replace six screens of another type. The installation, according to Otha Winningham, general superintendent, has increased screening capacity and quality, and is adequate to handle any further production increases for several years. At the same time National added another Sutherland refiner to eight previously in operation, and installed four Hermann Claflin refiners for use on unwashed stock for fiberizing.

Wood Handling: Through the years, mechanical handling of wood has been developed at National's Jacksonville plant. This handling and movement becomes critical on a mill site that encompasses

REFINING MORE AND BETTER

STOCK PREPARATION: Three Cowan centrifugal screens (background) and one new Sutherland refiner (foreground) have increased production and quality of stock to the machines at Jacksonville.

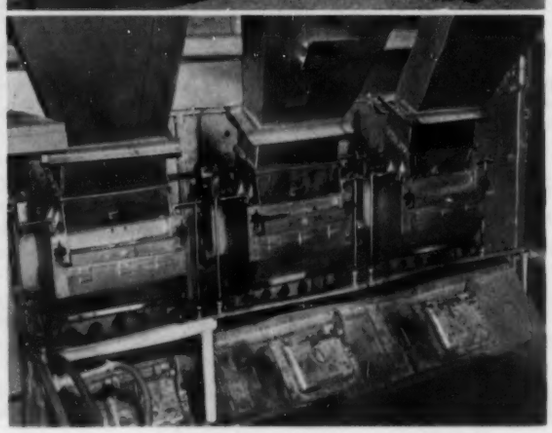


TWICE AS MUCH FILTERED WATER

WATER TREATMENT: Was doubled at National by adding second Infilco unit with 3500 gpm capacity. New unit at left of old.

NOW BURNING BARK AT JAX

POWER PLANT: Conversion of old waste heat black liquor boiler for bark burning included installation of Combustion Engineering spreader stoker in National Container mill.



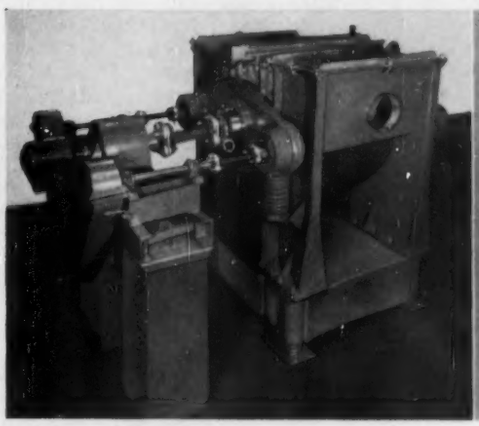
THIS IS IT!

This is the Screen that combines rotary and vibratory action to handle high consistency stock and lots of it, through slotted plates.

This is the Screen that has already proved itself — over 400 successful installations abroad, and many in this Country, some of them repeat orders.

This is the Screen that delivers from 60 to 90 tons of hard kraft stock per day at 1.5% or higher consistency; that produces 60 to 80 tons of semi-chemical pulp, using .018" cut screen plates; that handles 100 to 140 tons per day of deinked stocks at 1.1 to 2.0% consistency; that works, and works wonderfully well on paper stocks hitherto considered unscreenable.

BIRD MACHINE COMPANY • SOUTH WALPOLE, MASS.



The BIRD VIBROTOR SCREEN

only 15 acres. Recent mechanical additions include an Orton crane and a stationary truck unloader, and a Whiting Trackmobile. The Trackmobile is capable of switching two fully-loaded cars or four empties to any point in the yard. It is used chiefly for switching wood cars to the conveyors, and it is now used 24 hours a day in the wood handling operation.

In addition to these devices in the yard, National has installed a new wood conveyor from the barking drum to the chipper room. This Jeffrey conveyor is equipped with 60-in. Goodyear rubber belt working on 100 ft. centers. Also a new shuttle conveyor over the chip bins and a new 600-ft. rubber belt conveyor to deliver chips from the chippers to the digester storage bins.

Included in wood preparation is a 10-knife, 96-in. diameter Carthage chipper with 19-in. spout. This is identical to the previous chipper installation.

Water Treatment: The capacity of the treatment plant has been doubled with the addition of a second Infilco unit having a capacity of 3500 gpm. This is similar to the original one, and they are side-by-side in the mill location.

Paper Machine: A move to provide further for machine speed and facility of operation is installation of a General Electric Amplidyne Control, replacing the old Selsyn System, including sectional drives on dryer sections. These multiple generator sectional drives were intended to increase flexibility of operation, and installation is expected to be completed this March.

Instrumentation: Development of instrumentation has made as great a contribution to the progress of the mill in quality and quantity production as any other thing, according to National's production men. Practically all variables in the whole operation are now being measured and recorded, in the same way as are the operations in the new mills being built or having been built within the last two years. For example, there is an automatic digester liquor charging system; automatic controls for stock flow at wet end of paper machine; complete measurements and recording of variables in the operation of the brown stock preparation and washing system, etc. Most recorders throughout the mill are combination recorder-controllers.

Liquor Preparation: In the caustic area, National has added an 8 by 9 by 170 ft. long Allis-Chalmers lime kiln as a mate for an original 300 ft. kiln, and has also added another Dorr lime slaker.

Laboratory: Pride of the Jacksonville operation is a 100 by 150 ft. laboratory separate from production facilities. This two-story brick building not only houses modern laboratory equipment, but also facilities for first-aid, and complete locker and washroom for all employes.

For all these things the Jacksonville story assumes particular industry interest, because this plant, designed for 200-tons-per day, now produces an average of over 420 tons per day. If the new plant of National at Valdosta does as well, its 500-ton-per-day capacity will have reached 1000-tons-per-day by 1970.

SOME OF JACKSONVILLE KEY MEN NATIONAL CONTAINER BELIEVES IN:

TOP ROW—l to r: OTHA WINNINGHAM, Gen. Supt.; D. J. BRETT, Jr., Personnel Director; R. V. PENNINGTON, Plant Engineer; RAYMOND McCORMICK, Paper Mill Supt., and W. B. HOBBS, Pulp Mill Supt.—all advanced to higher positions at "Jax" when Valdosta Mill was staffed.

BELOW—l to r: E. H. ANDERSON, Master Mechanic; ROBERT E. ADAMS, Maintenance Supt.; C. N. HESTON, Construction Engineer; T. T. (TEX) COLLINS, Technical Director; C. L. SMITH, Chief Chemist. All these were promotions in line, too, except Mr. Collins, who came from Thilmany to fill a vacancy.

National Container Advances Many of Its Own People

FAITH OF NATIONAL CONTAINER CORP. in its own people was exemplified in recent promotions and changes in the mill at Jacksonville, Fla., and the new one at Valdosta, Ga. NCC president, Samuel Kipnis, expresses this in a recent 25th Anniversary Review dedication to "the men and women who by their labor, capital, courage and talents together have made the corporation successful."

Practical application of this philosophy was made by William T. Webster, director and vice president in charge of mill operations, in directing the personnel requirements for the big new 500-ton-per-day kraft pulp, paper and board mill recently placed in operation at Valdosta, Ga.

The complete top level supervision for Valdosta was moved out of the Jacksonville, Fla., operation of the company, and about half the assistant superintendents, tour bosses, etc., at Valdosta came from Jacksonville. About 60 key operating personnel were involved in the shift in addition to the supervisors, and almost 20 percent of the total personnel requirements for Valdosta came from Jacksonville.

Many moves to Valdosta were in the nature of promotions, and all vacancies resulting at Jacksonville were filled by promotions within the plant. This was viewed as a sound expression by the management of its belief in its people.

The personnel set-up at Valdosta has been previously reported. Here is a resume of some of the key moves at Jacksonville as a result of the shifts:

Under Mr. Webster, in overall charge of operations, is a three-man working team including Otha Winningham, who moved to general superintendent from the engineering department; R. V. Pennington, plant engineer, formerly maintenance superintendent; and D. J. Brett, Jr., personnel director.

WILLIAM T. (BILL) WEBSTER, Vice Pres. and Director of NCC—he selected from ranks for promotions to key posts in Jacksonville and Valdosta mills.

Raymond McCormick was lifted to paper mill superintendent from assistant superintendent; W. B. Hobbs was named pulp mill superintendent from assistant superintendent; and Robert E. Adams was made maintenance superintendent after having served at Jacksonville as construction engineer.

C. N. Heston was promoted to construction engineer to replace Mr. Adams, and C. L. Smith to chief chemist from assistant chief, while E. H. Anderson went to master mechanic from an assistant's job.

Other changes at Jacksonville of recent date involved J. W. Lessel, who took over as power superintendent about two years ago, and T. T. (Tex) Collins, who moved to National from Thilmany in 1952 as technical director to take over a vacancy resulting from the retirement of R. H. Stevens.

WOOD PULP

PAPER

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BULKLEY, DUNTON PAPER CO., S. A.
BULKLEY, DUNTON CELLULOSE EXPORTS, INC.
BULKLEY, DUNTON PAPER (FAR EAST) CO., INC.
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NEWS IN PICTURES—ABOUT INDUSTRY MEN COAST TO COAST

EISENHOWER ON ST. REGIS BOARD

EDGAR N. EISENHOWER, widely known out on the West Coast as one of the President's brothers and also as a former champion senior golfer of the Northwest, is a newly elected Director of St. Regis Paper Co. His home is Tacoma, Wash., where St. Regis has one of its biggest operations, and his law firm has acted as counsel for St. Regis.

RAYONIER SHIFTS AT FERNANDINA

PERSONNEL SHIFTS AT RAYONIER to accommodate new plant of the company at Jesup, Ga., have resulted in naming of EVERETT SMITH (left) as Office Manager at Fernandina, Fla., and BLANTON HASKELL as Resident Engineer. They replace W. P. JOYNER and WM. C. RINDSLAND, respectively, transferred to similar posts at Jesup.

NEW U. S. CHIEF FOR STANDARDS

DR. ROBERT B. HOBBS, who succeeded late B. W. Scribner as Chief of Paper Section, U.S. Bureau of Standards, Washington, D.C. Graduated Geo. Washington U., on bureau staff since 1930, except a year with U.S. Leather Co. Authored many paper technology articles.

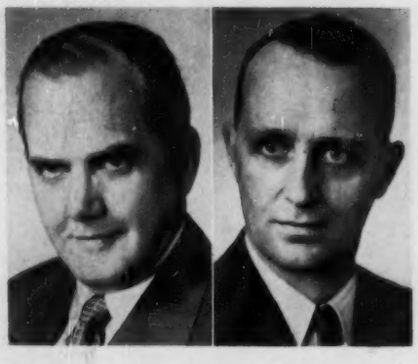
GERBER IN WEST; GRONDONA EAST

HOWARD B. GERBER (left), who has moved permanently to Portland, Ore., from his former home near Chicago, Ill., as he has been appointed by E. D. Jones & Sons Co., Pittsfield, Mass., as its Sales Representative in the Pacific Northwest, including British Columbia. For many years Mr. Gerber covered the Northwest for accounts of Williams, Gray Co.

CHARLES A. GRONDONA (right), has been appointed Asst. to the President, Hollingsworth & Whitney Co., Boston, by James L. Madden, President. Mr. Grondona was for five years Vice Pres. of Mfg. for Hudson Pulp & Paper, before that was Asst. Mgr. at Camas for Crown Zellerbach and Mgr. of its mill at Carthage, N. Y.

FOR FELTS IN MIDWEST AND EAST

CHARLES KELLEY JR. (left), as previously announced in *PULP & PAPER*, has been transferred from Northeast to Michigan to represent H. Waterbury & Sons Co. in the Midwest, while JOSEPH H. KELLNER (right), of Needham, Mass., has succeeded Mr. Kelley in the Northeast.



HEAD I. P. DIVISIONS IN CANADA

F. J. GIFFEN (left), appointed General Mgr. of a new Pulp Division, embracing Temiskaming and Hawkesbury mills and Gatineau bleach plant of Canadian International.

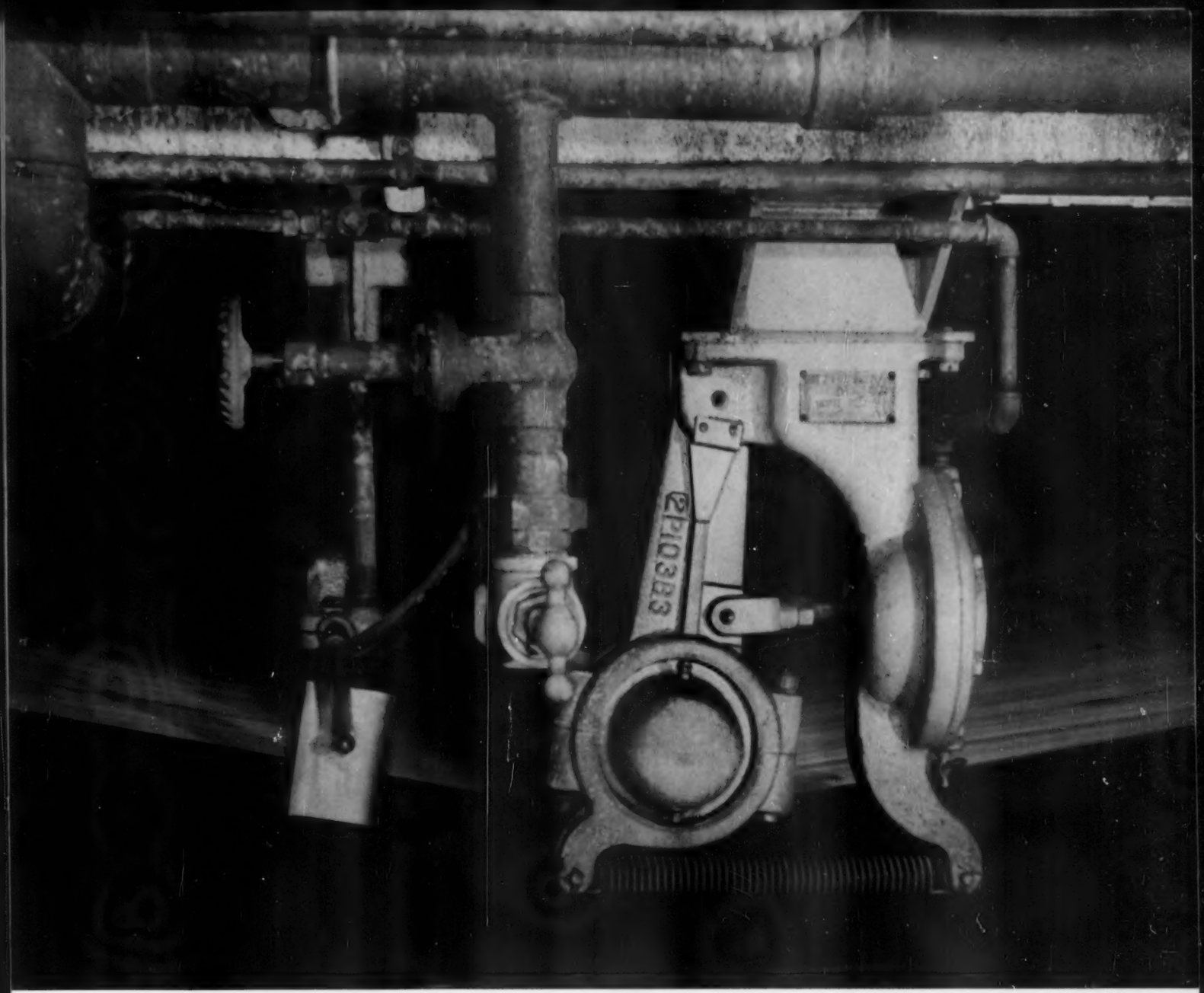
E. B. HINMAN (right), who succeeded Mr. Giffen as Manager of all newsprint mills for Canadian International. Mr. Hinman moved to Montreal from Dalhousie, N.B., where he was succeeded as Mill Mgr. by C. H. CHAMPION, former Asst. Mgr. at Gatineau. Operations of the Pulp Division plants are directed by B. GRAV, Norway-born Pulp Mills Mgr. in Montreal and ex Mgr. at Temiskaming.

NAMES IN MIDDLE WEST NEWS

GEORGE E. MACKIN (left), who came to Green Bay (Wis.) Paper & Pulp Co. as Consultant for U.S. Forest Products Lab in Madison, then became Gen. Mgr. of its new semi-chemical pulp and paper mill, was recently promoted to Executive Vice Pres., as announced by Pres. Geo. Kress. A pioneer of semi-chemical process development, Mr. Mackin had been at Madison in pulp and paper research since 1934. CHARLES A. SANFORD (right), who has joined Nekoosa-Edwards Paper Co. in newly created post of Mgr. of Industrial Relations, as announced by Pres. J. E. Alexander. Mr. Sanford graduated from Michigan Law, was in Ohio forge and aviation equipment industries many years and wrote a safety manual for die casting. W. R. Cahill continues as Nepco Personnel Director.

ALL DIRECTORS BUT ONE ARE HERE, INFORMALLY

DIRECTORS OF POWELL RIVER CO. get together at the British Columbia paper mill town inspecting expansion. Standing, left to right: CLARENCE WALLACE, EDWARD BROOKS, J. GLEN SAMPLE, ROBERT H. SCANLON, A. H. WILLIAMSON, M. J. FOLEY, Executive Vice Pres.; GEORGE O'BRIEN, Vice Pres. Seated: ANSON BROOKS, Pres. of Powell River Sales Corp.; HAROLD FOLEY, President, Powell River Co.; WILLIAM S. BROOKS; Maj.-Gen. H. F. G. LETSON. J. H. LAWSON, another Director, was absent.



AUTOMATIC WIRE GUIDE provides consistent guiding response at all machine speeds. This patented Beloit Air Guide needs only moderate air pressure for smooth, dependable control of wire position. No ratchet mechanism to be driven by the contact of the control palm with the wire. Simple, rugged design means trouble-free operation, minimum maintenance.—*Beloit Iron Works, Beloit, Wis.*

BELOIT

PAPER MACHINERY

WHEN YOU BUY BELOIT...YOU BUY MORE THAN A MACHINE!

NEGOTIATE FOR MILL IN ALASKA

INTERVIEWED BY *PULP & PAPER*, this Japanese delegation wants to invest with majority American capital in a Sitka, Alaska pulp mill to supply Japan. Russia offered to supply Japanese needs, they said, but they don't want any Russian pulp. In Seattle en route between Alaska and New York and Washington, D.C., they are (l to r): Y. NIKI, Managing Director (financial) of new Alaska Pulp Co. of Tokyo; M. SADAYASU, company official and interpreter; MISS A. KOBAYASHI, Secretary to her father, J. Kobayashi; T. SASAYAMA, Chairman of Alaska Pulp Co.; J. KOBAYASHI, President of same company (in front); T. OSHIMA, Executive Director; and S. SAITO, Consul.

APPA Protests to U. S. Government As Japanese File for Alaska Company

THE JAPANESE are deferring plans for a sawmill enterprise in Alaska for the time being, but are continuing to follow through on their interest in establishing a pulp and paper mill in the area. These decisions were expressed by T. Sasayama, chairman of the board of the Japanese-promoted Alaska Pulp Co., in a year-end visit in Washington, D.C., with Ira J. Mason, chief, division of timber management, U. S. Forest Service.

The "follow through" indicated by Mr. Sasayama will consist of sending another mission of pulp and paper technicians from Japan to the U.S. and Alaska during early 1954. Despite several visits by the Japanese to Alaska and Washington—two in December—and the filing in Juneau (also in December) of incorporation papers for the Alaska Pulp and Lumber Co., there is no official news to report on the plans by the Forest Service, according to Mr. Mason. He explained that before the Forest Service can consider any proposition for timber in National Forests it must be approached by representatives of a legally-constituted U.S. corporation; it must be convinced that its financing is adequate and in order; and it must have time to advertise its timber for sale and accept bids.

As previously reported in PULP & PAPER, (1) the Forest Service would like to sell mature timber in Alaska; (2) Alaska would like to have an additional big industry for its developing territory; (3) the State department would like to help Japan out in its material and dollar-shortage crises; and (4) Japan needs wood. Key to the problem for the Japanese is how to finance an Alaskan enterprise.

The U. S. Export-Import Bank has told PULP & PAPER that it has not been approached by the Japanese for a loan, and that it would literally require "an act of Congress" to approve such a request if it were made. Its operations are intended to help U.S. private industry—not compete with it, its officials asserted.

Officials of the International Bank for Reconstruction and Development, sometimes known as the World Bank, have likewise told PULP & PAPER that Japanese interests have neither made a request nor a contact regarding a loan for any Alaskan mill. Furthermore, they point out that it would be highly irregular for such a loan ever to be made, for these reasons: (1) the International Bank's functions are to spur developments in trade-shortage countries where private capital is not available; (2) it will only make loans where such capital is not available; (3) the government of the country where the loan is made must guarantee it.

The Bank's officials point out no loan has ever been made in the U.S. or its territories, for the reason that private capital is available to finance any sound program. It can be speculated, therefore, that an approach by the Japanese for funds from the International Bank would place suspicion on the soundness of the enterprise—and it would be more than just reluctant to hand out $30,000,000 or more to finance a program private capital wasn't willing to underwrite.

Another angle which financial men have elaborated to PULP & PAPER is that the net effect of Japanese efforts, if successful, would be to help develop Alaska—not Japan. Their reasoning is that the pulp mill would be of benefit in industrializing Alaska; money for raw materials would go to U.S. industry; and dollars earned would have to remain in the U.S. even though in Japanese hands.

For the Japanese to benefit they would have to have sufficient dollars to buy from their own-inspired company. Financiers said that no amount of manipulation can hide the fact that the Japanese economy would lose, unless its Alaskan mill could produce more cheaply than existing competitors, using the same American labor, and paying the same prices for raw materials, including wood.

Why do the Japanese persist? The dollar shortage in Japan is so acute that every effort is being made to secure relief. The first move was prompted by the idea they might be able to use their own labor and ship out wood in an unmanufactured state. Although it was pointed out by the Forest Service and other U.S. agencies that this was not possible, they have persisted, seemingly hoping for a miracle. The cease-fire in Korea will make the Japanese more desperate for dollars, and U.S. aid in some form may be necessary to prevent economic collapse. Despite a State Department general endorsement of the plan, PULP & PAPER has seen no indication that this aid will in part consist of handing the Japanese an Alaskan pulp mill on a silver platter.

Nevertheless concerned with the possibilities, the American Paper & Pulp Association has filed a protest on behalf of the industry through the Business and Defense Services Administration of the Department of Commerce. The statement protests any sale of wood from publicly-owned land to Japanese interests, as "not in the national interest" and "unsound economically," and concludes with the statement that "if our government accedes to this Japanese request it must be prepared to assume full responsibility for both the economic and political consequences."

Industry position on the Japanese interest in Alaskan timber was stated before Senator Malone's sub-committee on interior and insular affairs in Washington, D.C., Jan. 5, by James Sheehy, Rayonier Inc., and Harold Murtfeldt, Consolidated Water & Power Co., representing APPA. They said any granting of timber rights to Japanese would be contrary to national interest and that of industry.

Brown's Sulfur Dioxide Plant Runs Well

BROWN CO.'s Berlin, N. H., plant which produces sulfur dioxide from Vermont pyrrhotite concentrates by using the Fluo-Solids roasting process developed by Dorr Co., has produced efficiently and well in its first year of operation.

In a report on its operating experience, J. T. Hegeman of Brown Co. says its tonnage has been high and gas has been of good strength. While it was built as an emergency measure during the shortage period for elemental sulfur two years ago, he says it "should continue to produce a substantial proportion of sulfur dioxide for Brown Co."

"In the first year," wrote Mr. Hegeman, "the FluoSolids plant, despite repairs, ran 83 percent of the time. Over 27,000 tons of pyrrhotite were processed which is equivalent to 9700 tons of sulfur. Recovery of the available sulfur in the pyrrhotite was 94 percent, which means that the sulfur dioxide delivered to process exceeded 18,000 tons for the year. Average tonnage rate for the days operated was 85 tons/day of pyrrhotite, equivalent to 30 tons/day of sulfur. Actual rates varied from 50 to 100 tons/day of pyrrhotite. Studies indicate that the reactor is capable of still higher capacity."

MILLS ARE IMPROVING QUALITY BY SELECTIVE USE OF DEFOAMERS

Hercules' well-known Defoamer 4 brick, in use at the Combined Locks Paper Company in Wisconsin.

Many mills have learned that the use of the right type of defoamer has helped them improve quality. Maybe you, too, can benefit by the economical use of the right defoamer.

Hercules has both the technical know-how and the range of products to help you. Hercules defoamers are available in solid, liquid, or paste form, and are designed for practically all types of paper and board.

We welcome the opportunity to discuss the possible advantages to you of the selective use of defoamers.

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"PICTURE MILL" INTRIGUES PICTURE-TAKERS

OVER THE YEARS many photographers, including PULP & PAPER editors, have snapped many a picture of this scene—The Blandin Paper Mill which made industrial history when it was constructed 22 years ago without a single window. An addition on left was for Appleton Machine Co. supercalenders and the structures for power boilers and turbines were later additions.

Blandin Is Still Photogenic—and Modern, Too

BLANDIN PAPER CO. startled a goodly portion of industrial America 22 years ago when it built one of the first windowless brick and concrete manufacturing plants in the world—the first in the paper industry. From an architectural point of view, and for its landscaping, it has long been pointed-to-with-pride by this industry.

Visited by PULP & PAPER recently, this Minnesota mill, just 70 miles below the source of the Mississippi River, was found to be still keeping up with modern improvements and additions and still as photogenic as ever. Our cover picture and new pictures on these pages confirm that.

Last month Blandin completed installations in a new groundwood mill, which has a modern exterior of Robertson Q type Fiberglas-insulated paneling and glass brick. A cement tile roof has Fiberglas insulation.

The main building, housing two Fourdrinier machines, 156 and 120 in., and two supercalenders, 148 and 76 in., and also rewinders, is windowless, as is an added wing. Windows were eliminated to achieve cleanliness and air and drying control for the quality printing papers which Blandin makes. Recent improvements and speed-ups have been made on these paper machines.

This attractive mill is in Grand Rapids, Minn., and just 70 miles westward at Bemidji, on U. S. Highway No. 2, one can straddle the beginning trickle of the Father of Waters. It meanders southward 2,500 miles to sweep past New Orleans levees into the Gulf of Mexico.

For some 60 miles to the eastward from Grand Rapids, along Highway 169 is the famous Iron Range, with the biggest open pit mines in the world, still producing iron ore at Hibbing, Chisholm, Virginia and other towns.

And just 122 miles to the north is the Canadian border. Grand Rapids is at a meeting point of waters from literally thousands of lakes and only a few miles below the East-to-West Continental Divide, where waters begin flowing south and east. Across that Divide they all flow to Hudson's Bay and the Arctic, and there are no exceptions.

How It All Started

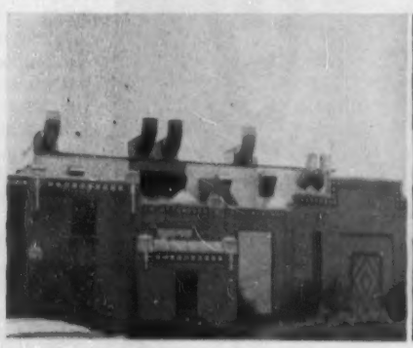
Here, where water of fine quality was found, and great stands of spruce and balsam could be driven to the site, Charles Kenneth Blandin, general manager of the merged St. Paul *Dispatch and Pioneer Press*, bought himself a little 25-ton newsprint mill. Three years later he became owner of the newspaper properties, where he had started as circulation manager. He still lives in his big home on the beautifully landscaped Mississippi river bank, just across from the mill. He's 81 years old, but still takes a restrained but effective role in mill and town affairs. This winter he is staying in Grand Rapids, instead of making his customary long trip to Florida.

His close associate for many years in this enterprise has been Carl Kirkwood Andrews, long time general manager of mill operations, who became executive vice president this year. He has long been a leader in pulpwood production and forest conservation in the Lake States.

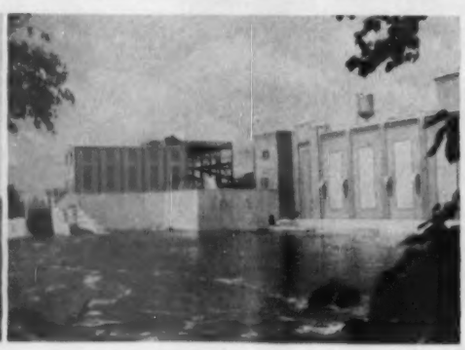
Soon after he entered the paper industry—36 years ago to be exact—Mr. Blandin wrote a booklet (now in PULP & PAPER's files, a gift from him) in which he forecast that the American newsprint industry ultimately would be supplanted largely by a Canadian industry because of the tariff repeal many years ago and attacks of publishers on mills and pressure politics in Congress.

He sold his newspaper holdings 26 years ago. The Blandin mill started to convert from newsprint to high quality printing papers 11 years ago. It made its last roll of newsprint six years ago. It has been making 100% supered book and magazine paper for nearly three years. And the wood that it still gets from Northern Minnesota is now about 20% aspen, the rest spruce and balsam. But its 3-story 6-year old groundwood bleach plant, Dupont Solozone peroxide process, assures a quality pulp which is blended with purchased chemical pulps.

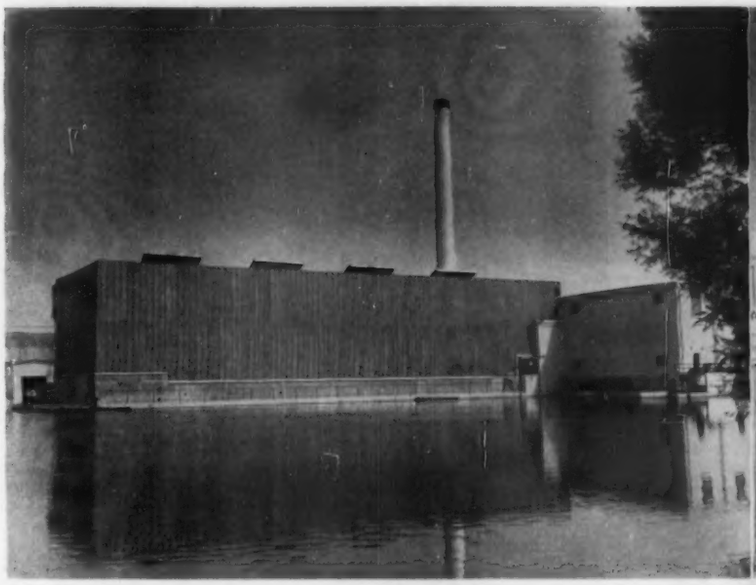
A rebuilt improved water power plant after the mill dam was lost in a flood five



ENTRANCE TO OFFICES at the north side of Blandin Paper Co., showing ventilating equipment above window-less mill.



WHERE NEW GRINDER ROOM is located—the new construction between water power plant and the mill.



SOMETHING NEW ADDED—A MODERN GRINDER ROOM

BLANDIN PAPER CO. again went modern here—true to its past—with a modernistic new Grinder Room. Constructed of Robertson Q paneling and glass brick. Grinders from three former locations are concentrated here.

MISFORTUNE LED HERE TO IMPROVEMENT

OF COURSE, NO ONE was happy when a flood over five years ago of the Mississippi River, near its source, swept out Blandin's old dam and power plant. But it did lead to this new much improved water power facility.

years ago, an Appleton Machine supercalender and winder, screen room additions, an Allis-Chalmers Streambarker, a Shartle Hydrapulper and new pulp storage, were other improvements of recent years. Now come the machine improvements, the new groundwood mill and the addition by next June of a third power boiler, a Babcock & Wilcox unit which will virtually double mill steam capacity.

The new boiler, with Bailey combustion controls and metering, will be of 195,000 lbs. per hr. capacity, and will have capacity for 850 lbs. pressure at 800° F., but for the present will operate at 450 lbs. and 650°. It will have a Detroit Rotograte stoker and burn Ohio coal. The roof section of the mill power plant is going up 15 ft. higher to accommodate the new boiler. It will take over space occupied by the old alum-mixing, clay storage building and replace an old Sterling boiler now used for standby capacity.

The power dam for Blandin Paper Co., after the disastrous flood in 1948, was rebuilt at a cost of approximately $1,250,000. It is an improved dam and some 20 ft. ahead of where the old one stood. This added ground made available to the mill is now part of the space that is being occupied by the new groundwork mill, which stands on what had been river bottom, and a 3500 gpm Infilco Accelerator built into the new dam.

Groundwood Mill Completed in January

THE GROUNDWOOD MILL is 180 by 60 ft. and 40 ft. high. Robertson Q-Type Fiberglas insulated steel panels, put up in sections, constitute the side walls. A cement tile roof will have a built-up Fiberglas insulated roof on top.

Grinders have been moved from the old grinder set-up spread through the mill basement, six from under the pulp end and three from under No. 3 machine. A rebuilt grinder with a motor salvaged from the river when the dam broke is also being used. Thus there are now ten grinders in all in the new groundwood operation, but eventually four more may be added.

These are all 4-pocket grinders. Crews started moving them into the new structure in September 1953, and the last three were installed in January.

The layout in the new operation is four grinders on one side and six on the other side, facing a common aisle through the building. Motors will be on both outside walls. An operator will be able to feed two grinders at a time. Electric Machinery Mfg. Co. motors are being used, all from 800 to 1,500 hp.

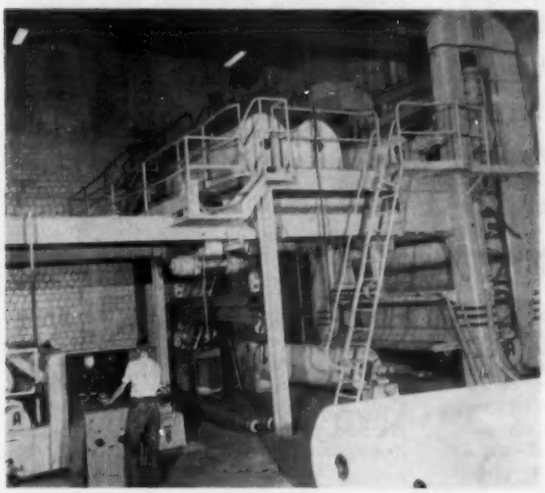
The Blandin management decided to stay with the pocket type grinder, instead of going to larger units, because their capacity is spread around, and in case of shutdowns or stoppages of some units, there would still be some grinders to furnish mill needs. This was deemed important because the grinders supply about 60% of the furnish for the mill.

Centralizing all grinders in the new plant is expected to make for better quality control on grinding. It also will save labor costs. Housekeeping will be improved. Ross Engineering air-conditioned the new groundwood mill.

All ditches and storage chests are tile-lined or stainless steel. The foundation pans are all of stainless, instead of wood as formerly. This should improve cleanliness. Stainless steel fabrication is by Felker Brothers of Marshfield, Wis.

Link-Belt will provide a conveyor system, with three belt conveyors. Existing pumps will be used and all piping will be stainless steel, for stock and white water.

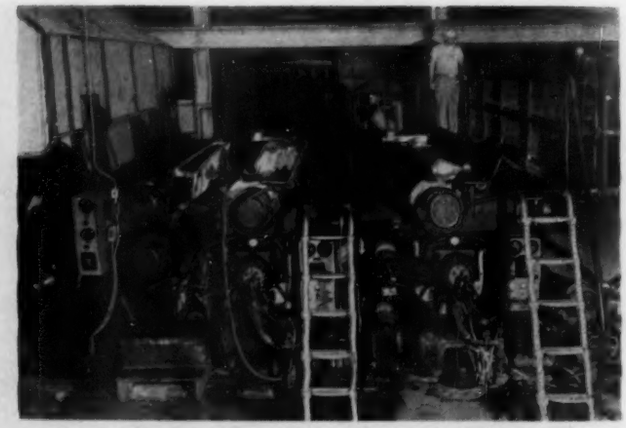
Oil grinding operations areas will be used for new clay storage tanks and alum



APPLETON MACHINE CO. 148-in. supercalender has Reliance Electric & Engineering drive. Runs at 1800 fpm, required new building wing when put in a few years ago.

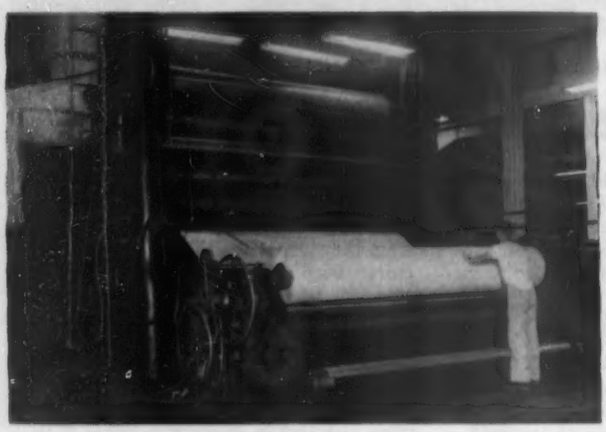
SPEED INCREASED ON NO. 1 TO 970 FPM FOR 40#

THIS DRY END VIEW of No. 1 Machine at Blandin Mills shows new Beloit transfer reel recently added. A Cameron Rewinder which follows this was rebuilt to go from 44 to 52 in. rolls. JOHN MORKEN, Backtender, is at machine.



A MUCH DRYER SHEET IS COMING OFF FIRST PRESS

BELOIT IRON WORKS *supplied new wire couch roll and two new Stowe-Woodward-covered suction presses for this press section on No. 1 Machine at Blandin.* **BRUCE ERSKINE,** *Machinetender is on walkway.*



WILL TAKE ROLL UP TO 60 IN.

THIS REEL IS LATEST addition to No. 3 Machine (156 in.) at Blandin Paper Co., which now makes about two-thirds of mill production. Beloit supplied reel. Rewinder had to be moved back and capacity increased. JACK RIEHLE is looking for any possible defects.

mixing and storage tanks.

Helmick & Lutz of Minneapolis were engineers for the project. Construction was done by the Blandin mill's own construction crews, except that American Bridge Co. furnished and erected the steel work. The new mill should be in full operation by late fall.

Both Machines Get A Face-Lifting

IMPROVEMENTS ON No. 1 MACHINE, which has a 121 in. wire, have speeded it up by about 150 fpm to 970 fpm for paper up to 40 lbs. basis weight. The drying has been so greatly improved that a dryer sheet is now coming off the first press than had come off all three presses previously.

One new Bird screen and additional Vortrap capacity were added.

Beloit Iron Works supplied a new wire couch roll, two new airloaded suction presses, four more paper dryers and two felt dryers to the first of two dryer sections, and a new Pope type reel.

The Cameron rewinder has been rebuilt to go to larger rolls of 52 in. whereas before it was limited to rolls of 44 in.

A suction press and two wringer rolls were replaced with the two new suction presses. Stowe-Woodward covered them both, with Stonite on top roll, first press, and Granite on second press. Other additions for No. 1 machine included an additional Nash vacuum pump, new stock pumps, and a new Scott-Liebeck pulper for waste broke.

A new Briner economizer by Ross Engineering Corp. was installed over No. 1 recently.

No. 1 machine trims 110 in. It now makes about one-third of the mill production. Several years ago it was equipped with a General Electric steam turbine direct drive to line shaft, and this shaft has now been rebuilt to take anti-friction bearings. A 76-in. Appleton Machine Co. supercalender installed in 1948, serves this machine.

There is no No. 2 machine. This was taken out and sold in 1937, when all three machines were still on newsprint. This space is available for an additional machine.

No. 3, with 156 in. wire, now makes about two-thirds of mill production. It was originally installed in 1931, but many improvements have been made. These are most recent:

Speed was increased about 150 fpm to 1300 fpm on an average, for all book grades, and sometimes it has run at 1,330 fpm. The machine already had ample dryer capacity.

A Beloit air cushioned headbox and slice was added. The Bird screens were raised 37 in. to provide more head.

The entire air exhaust and supply system was replaced by new Ross Engineering Corp. equipment with fully automatic controls. The Ross system now supplies air to machine, beater and finishing room.

Stowe-Woodward has rubber-covered the suction press rolls which were bronze shell. And that company has covered top press rolls with Stonite.

A new Beloit reel was the latest addition in July, this one with capacity to wind 60-in. diameter rolls. This made it necessary to increase the roll size capacity for the Beloit rewinder and to remove this rewinder back to allow more space for the reel.

A few years ago this No. 3 machine acquired what was then the new Beloit breaker stack, which had been arousing industry interest by improving finish and printing characteristics of the sheet. And it also acquired a Monel headbox.

A little over two years ago, a new 148 in. trim, 1800 fpm Appleton Machine Co. supercalender with Reliance 300 hp motor was installed and takes all of No. 3's production. A new Appleton Machine winder was also added.

About the Men Who Built Blandin

MR. BLANDIN WAS born in Iola, Wis., started as a "string" correspondent for papers while living in New London, Wis., and finally landed as subscription solicitor on the *Minneapolis Tribune*. In 1904 he went over to the St. Paul *Pioneer Press* and the papers he later owned. But he was always a close friend of the late Frederick E. Murphy, widely known owner of the *Minneapolis Tribune*, for whom he had worked.

C. K. "Kirk" Andrews was born in York county, Pennsylvania and moved to St. Paul in 1910 where he joined Mr. Blandin. He had been v.p., treasurer and general manager many years before recently becoming executive vice president and

CHARLES K. BLANDIN, who founded Blandin Paper Co. 36 years ago and still takes a restrained but effective role in management of the mill.

treasurer.

Myles Reif, at Blandin since 1942, is now vice president and general manager, having previously been general superintendent and before that, technical director. Graduate of Marquette University, he lived formerly in Milwaukee and Neenah, Wis., and was with Kimberly-Clark.

George W. Goelz, promoted from plant engineer to vice president and assistant general manager and continuing as chief engineer, graduated from Iowa State College, was with Bailey Meter Co. and chief power engineer for Valley City, N.D.

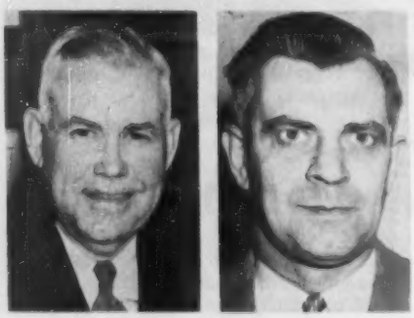
C. H. Schacker is secretary and L. J. Thomas is assistant secretary.

G. E. Meyers, who is production manager and traffic manager, was born in Grand Rapids and joined the company in 1933.

Ted Frederick, assistant plant engineer under Mr. Goelz, has had an active role in the expansion and improvements since he joined the company in 1951. He formerly lived in Duluth, graduated from U. of Minnesota in 1949, and was with Paul A. Laurence Co., of Minneapolis, on engineering projects particularly in the paper mills of Minnesota.

Art Patton, also of the engineering staff at Blandin, was similarly active in the recent construction work.

C. A. Richardson is technical director, M. J. Salisbury is woodlands manager, and E. E. Clark is purchasing agent. Paul A. Smith, veteran former superintendent, still lives in Grand Rapids and occasionally serves as consultant.



BLANDIN EXECUTIVES. C. KIRKWOOD ANDREWS (left), longtime associate of Mr. Blandin and now Executive Vice President; MYLES REIF (right), now Vice Pres. and Gen. Mgr., who came to Blandin in 1942 from Wisconsin.

KEY MEN ON CONSTRUCTION AND EXPANSION. GEORGE W. GOELZ (left), Vice Pres., Assistant Gen. Mgr. and Chief Engineer; TED FREDERICK (right), Assistant Plant Engineer and a newcomer to Blandin.

How Community Shares in Mill Profits

THE CHARLES K. BLANDIN Foundation is an unusual institution. It represents a high caliber of public relations for an industry and an industry's responsibility to a community. In the Lake States, this Foundation is well regarded for the credit it brings to the whole paper industry.

When Charles K. Blandin founded it back in 1941, he did not, at first, have any idea that it would function during his lifetime. Now in his 80's but still the active president of his paper company, he has had the pleasure of seeing the Blandin Foundation functioning for the betterment of the community of Grand Rapids, Minn., where Blandin Paper Co., is located, and for Itasca County.

The Foundation draws its income from the paper company. In Mr. Blandin's own words:

"Its purpose is to make Grand Rapids (pop. 7,000) most outstanding as a desirable place to live; that families can live happily, be prosperous, and children be supplied with the best educational facilities, and its people be given modern comforts of life."

As of Dec. 31, 1953, Mr. Blandin and the Blandin Paper Co. have contributed about $300,000 to the Foundation. This has been used to finance religious, civic and educational enterprises of the community and county. These are created out of profits from the mill.

In effect, Mr. Blandin's heirs are largely going to be his employes, his fellow-townsmen and other residents of the fortunate county where he brought this thriving industry. There must be profits, which are "the wages" of capital, and wages for employes, and after these the Foundation profits.

The Foundation will not own the Blandin Paper Co. directly, but Mr. Blandin has arranged his affairs in such a way that the major portion of income from his estate (which includes the paper company) will go to the Foundation.

There is a proviso that the paper mill must continue to operate as at present, to keep modern, in order that profits may accrue to the Foundation. Thus, the Foundation is in a position akin to that of a stockholder.

It is provided in the Articles of the Foundation that its benefits may be spread to the entire state of Minnesota in case the spirit of harmony, so abundantly prevailing in the community, is disturbed by serious labor difficulties. However, the Blandin Mill has an unbroken history of smooth labor relations so this emergency is not anticipated.

Said C. H. Schacker, secretary of the company and also a trustee and secretary of the Foundation in an article published in the Blandin *Broke Pile* house organ:

"If Mr. Blandin followed the established precedence—if he did the usual thing—he would provide that certain portions of his properties would go to churches and established charitable institutions, and the bulk to relatives, friends and perhaps a favored few employes. But Mr. Blandin didn't choose to do the usual or the obvious. He wanted to be sure the paper company could continue as an independent organization for the benefit of its employes and the community in which they live."

There are ten trustees of the Foundation, including Mr. Blandin, Kirk Andrews, executive vice president of Blandin, Mr. Schacker and other business and community associates. It is a self-perpetuating board, with power to fill its own vacancies.

Mr. Blandin wanted the board to have some "experience" before his passing. So meetings and disbursements of funds set up for the purpose were begun several years ago. A trust company is fiscal agent and trustees have wide discretion in making grants.

Up to last fall they had authorized expenditures of about $90,000. Over half of this was for a beach and modern bath house on a lake in Grand Rapids. Other amounts have gone to public schools, boy and girl scouts funds and other public welfare items. A grant of $8,000 was made to the American Legion for tennis courts and a shuffle board court.

The way that Mr. Schacker, who is a St. Paul resident, explained it to PULP & PAPER: "It is an effective means of showing how a community can profit—after both capital and labor receive their due profits and wages. The Foundation is truly discharging an obligation to the community over and beyond the call of duty. That spirit embodied in its operations can build a great community."

Palmer Lathrop Dies

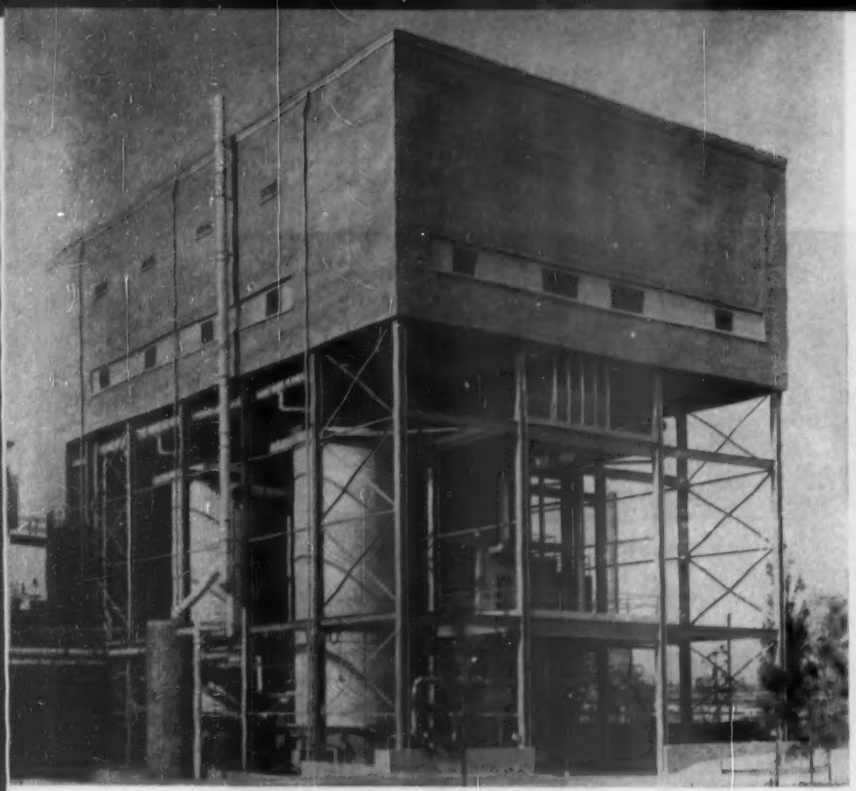
Palmer J. Lathrop, president of Cameron Machine Co., was drowned Dec. 26 in an attempt to rescue his dog, which had broken through ice on a reservoir in Millburn, N.J.

Mr. Lathrop was president of Cameron since 1949, after being vice president in charge of production for Bristol-Myers Co. and factory manager for Rubberset Co.

A Princeton graduate, he served in World War II as an officer in the Alaskan Air Transport Command.

Hydrapulper Ordered

A new $200,000 Shartle-Dilts 20 ft. diameter Hydrapulper has been ordered by The Gardner Board and Carton Co. to prepare filler stock for its board mill in Lockland, O.



THIS NEW BLEACH PLANT MAY ADD CHLORINE DIOXIDE STAGE

EXTERIOR VIEW shows glass block windowed operating floor of Camp's new bleach plant, is 60 ft. above ground. Now has four stages for pine and three for gum, which may be combined. Serves straight kraft and semi-chemical pulp mills. Stock pumps in basement are by ALLIS-CHALMERS. STEBBINS tile-lined high density and storage tanks, and chlorination towers are MANHATTAN rubber-lined.

New Instruments Used in Pine and Gum 2-line Bleach Plant

A NEW BLEACH PLANT of Camp Manufacturing Co., Franklin, Virginia, is the culmination of several years of careful planning by engineers of the paper mill and of J. E. Sirrine Co., of Greenville, S.C., the latter serving on the project for two years.

The ultimate program, as presently conceived, will provide two independent lines; one for pine and one for gum, with basic rated capacities, respectively, of 250 and 100 tons per day of fully bleached pulp. The plant, as now constructed is arranged so combined facilities may provide full bleaching for 250 tons of pine, or 100 tons of gum, or a combination of 150 of pine and 100 of gum. Gum and pine will be treated in separate chlorination towers, but may be combined in succeding stages.

Camp at Franklin has a kraft pulp mill and a semi-chemical pulp mill and heretofore made unbleached paper, bag and 9 pt. Its latest No. 3 machine is a high speed Beloit 226 in. Fourdrinier with pickup felt arrangement.

The pine line in the new bleach plant presently consists of these stages: low density chlorination, high density first caustic, high density first hypo, and high density second caustic. The gum line consists of low density chlorination, high density first hypo and high density second hypo. Construction of caustic stages in the gum line has been deferred and the two hypo stages are used in parallel to provide, temporarily, a second hypo stage for pine. Towers in these two hypo stages are suitable for either hypochlorite or chlorine dioxide bleaching.

Plans for Chlorine Dioxide

Specifications and drawings are under preparation by the J. E. Sirrine Co. for a possible chlorine dioxide bleach making plant under the Solvay process, with the conversion of the present final hypo stage to a chlorine dioxide stage.

The building of steel, brick and concrete occupies 75 by 117 ft. It is supported on more than 900 piles. There are no exterior walls from ground to the operating floor, more than 60 ft., except a small room on the second floor for bleach making. Two small enclosed areas in the center of the building house unit substations and control centers.

From operating floor to roof, the building is enclosed with brick and glass block. This houses washers, instrumentation, electrical control panels, laboratory, stock meters, heating and ventilating equipment and rest room. Instrument panels and laboratory at one end are isolated by tile and plate glass. Walls have buff colored glazed tile wainscoting with white paint above, and the floor is red quarry tile. A Transite ceiling, with flush type fluorescent lighting, is suspended from roof trusses.

To minimize humid or fume laden air contacts, panel boards and consoles are continuously purged by an independent air supply, motor control and unit substation rooms are likewise continuously swept by their own air supply and bleach making and chlorine rooms have exhaust fans. The J. O. Ross Engineering Corp. ventilating system provides filtered air equivalent to six changes per hour in the washer room, panel room, and laboratory. An exhaust system, connected to all six washer hoods, removes about 5,000 cfm through each hood.

Power is delivered to the building at 13,800 volts and transformed to 440 volts by three General Electric 1,000 KVA high impedance unit substations. These are housed with General Electric motor control centers.

Housed in one room are Louis Allis Co. package power supply units for Louis Allis

EACH WASHER IS FULLY CONTROLLED ON ITS CONSOLE PANEL

THIS IS CAMP MFG. CO.'s two-line bleach plant. STEBBINS buff-tiled each vat for new type IMPCO washers and LOUIS ALLIS provided variable speed drives for them. This operating floor is red quarry tile. Most instruments are HONEYWELL. A Transite ceiling with fluorescent lighting is suspended from roof trusses. Flow lines are below washers and no piping or posts mar this open roominess. In far background is glass enclosed room for HONEYWELL graphic panel, recorders and an "accounting" panel.

variable speed drives on washers and stock meters. Cold fresh water and steam for heating water and stock are supplied directly from the pulp mill headers.

Caustic is received as a 50 per cent solution and pumped from the tank car to storage in the causticizing building, where it is reduced to 5 per cent. This flows by gravity to pumps on the ground floor of the bleach plant. Chlorine in liquid form in tank cars is delivered to the bleach making room by padding the car with dry compressed air. Since flow must be uninterrupted, two tank cars are always on track and connected up, except for the seconds required to remove an empty and bring up a full car.

A steam heated vaporizer transforms liquid chlorine to a gas at a temperature of 110 degrees F. which passes through a regulator maintaining constant pressure of 50 psi. Safety devices are provided. Equipment for continuous, automatic manufacture of sodium hypochlorite is housed with the chlorine vaporizer. Here caustic is combined with chlorine gas. Two structural glazed tile tanks by Stebbins Engineering and Mfg. Co., provide about four hours storage of dilute caustic and hypo.

The Flow of Stock

On a mezanine above the operating floor are two Impco stock meters for pine and gum with DeZurik consistency regulators. Unbleached stock is delivered by Allis-Chalmers stock pumps through Johns-Manville Transite pipe. Crane Co. supplied most stock valves. From meters stock flows by gravity to the base of the chlorination towers at 3½ per cent consistency.

The towers are new design. Both have steel shells and are rubber lined by Raybestos-Manhattan. Both are 65 ft. high and 11 ft. in diameter. The pine tower widens to 18½ ft. in diameter 20 ft. above ground. Rubber lined Impco external circulators, one at base of gum tower, and two at base of pine tower, give stock and chlorine gas a rapid mixing. Towers are upflow type.

Dilute stock from towers is pumped to an 8 ft. by 16 ft. Manhattan rubber-covered cast iron, double valve Impco washer. Good washing and relatively high density are obtained without press rolls. All washers are provided with 316 stainless steel hoods. No overhead piping mars appearance of the room. All washer vats are buff tile by Stebbins Engineering, jointed with special chemical resistant compounds.

Stock from all washers except final stage, drop into Impco double shaft mixers, which discharge directly into towers below them.

Three pine high density towers have steel shells 49 ft. 6 in. high with concrete slab roof, and 3 in. tile linings by Stebbins. Two all-purpose towers in the gum line are the same height, but have domed steel roofs with concrete slab above. Lining is of special acid resistant brick with special membranes between the lining and tank shell. Stock is pumped from base of towers to washers by Allis-Chalmers stock pumps. White water dilution pumps are also Allis-Chalmers.

All Impco washers in the pine line are 8 by 16 ft. high submergence, cast iron, double valve type except the final washer which is all stainless steel, single valve type. The chorination stage washer is rubber covered by Manhattan. The two caustic washers in the gum line are 8 by 10 ft. cast iron single valve type. Stock from final washer passes through a DeZurik consistency regulator to storage.

Special Honeywell Instruments Used

Practically all instruments and panels were by Minneapolis Honeywell. Each stage in bleaching is completely controlled from a console panel in front of the washer. Records of flows, temperatures, levels, or consistency are made on chart recorders mounted on the main instrument panel in the glass enclosed room.

A Honeywell graphic panel, representing in symbol each and every major piece of equipment and pipe line, has been provided as a section of the main panel. All equipment comprising each stage is grouped by color scheme to represent the portion of the process controlled from each washer console. All the levels, pressures, flows, or other operating data are indicated. A red light on each pump, washer, circulator, or other piece of moving equipment indicates whether or not that item is in operation. No control or recording equipment is on the graphic panel, it being solely an indicator of operations.

A new accounting panel has been provided. On this are recording and totalizing instruments for total steam, cold water, hot water, and stock. Starting buttons for remote operation of liquor supply pumps and miscellaneous items complete this panel.

A new rectangular bleached stock storage chest 75 ft. 4 in. by 44 ft. 6 in., with glazed structural tile walls and concrete floor and roof slab, is approximately 16 feet from floor to ceiling. Circulation is by four propeller type Shartle-Dilts agitators.

MANY KINDS OF JOBS IN PAPER MILLS, like on this machine at Champion, call for all kinds of skills and qualities. Champion Paper & Fibre Co. uses personnel techniques ranging from Employment Pools to Management Teams.

THESE ARE CHAMPION'S DIVISIONS. From top to bottom: OHIO DIVISION, Hamilton, Ohio; CAROLINA DIVISION, Canton, N. C.; and TEXAS DIVISION, Pasadena, Texas.

CHAMPION INTENSIFIES ITS TRAINING OF KEY MEN

By Ray G. Garrett

Public and Industrial Relations, Champion Paper & Fibre Co., Hamilton, O.

THE TYPES OF OCCUPATIONS offered by this industry are multiple and varied. Some job assignments are repetitive, others demand special aptitudes, skills and detailed attention, while still others require quick decisions and a high degree of responsibility.

Yet, all industrial occupations are alike in that they call for individual loyalty, initiative, intelligent application, a background of experience or training, dependability and, by no means least important, ability to get along with fellow workers.

The future of this industry is in the hands of people. There are places in all of its branches for men of energy, ambition and vision—men with zeal to better their station in life, while advancing the company.

Job opportunity presents itself to all. In Champion Paper and Fibre Co., as in other progressive companies, every employe, new and veteran alike, is the subject of a practical study to determine his potential and to make a determined effort to apply that potential in his best interests and those of the company. In essence, Champion Paper's program for up-grading employes is in keeping with standards and procedures observed in a number of other pulp and paper areas.

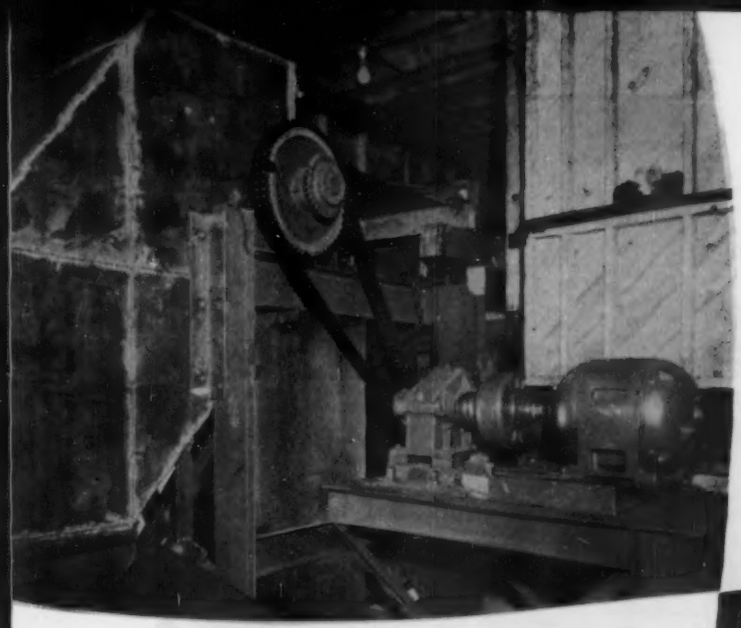
Opportunity Presented

In this regard, Champion Paper President Reuben B. Robertson, Jr., said:

"The pulp and paper industry needs men of widely varied educational backgrounds, both experienced and inexperienced, the unskilled and the professional, but in all instances there is need for men with imagination, ambition and an eye cast to the future. Likewise, it is our responsibility to provide an outlet for these commendable human qualities and move in this direction progressively. Naturally, everybody cannot reach the heights, but opportunity is presented for the resourceful and the solid thinker."

In a step-by-step procedure, Champion Paper is primarily concerned with the employe's potential or "what he has to offer" in the way of academic qualifications, experience, desire and all those necessary factors which make for proper placement. Once personal qualities are determined, Champion plans a "tryout" for the employe.

Those possessed of abilities receive encouragement from supervisors. "Time on



EXTENSIVE ACCEPTANCE!

WEYERHAEUSER'S NEW MILE-LONG CHIP CONVEYOR IS POWERED BY

WESTERN GEAR DRIVES

13 Western Gear Works Speed Reducer installations were selected for Weyerhaeuser's new mile-long conveyor at their new sulphate pulp mill in Everett, Washington.

These units, and many others, are a tribute to the extensive product acceptance given to Western Gear Works over a period of many years by the Weyerhaeuser Timber Company.

A complete line of speed reducers in a full range of ratios and horsepower is available – plus the added value of Western Gear Works engineering assistance. For information regarding your mechanical power transmission problems, please write, wire or phone our nearest plant or office.

WESTERN GEAR WORKS

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930 S. E. Oak St., Portland 14, Oregon
Room 212, Ross Bldg., Denver 2, Colorado
500 South Ervay Street, Dallas, Texas
Engineering & Machinery Ltd., 1366 W. Broadway, Vancouver, B. C.

the job" is a vital consideration in any promotion. But, also, job satisfaction is recognized as a critical factor in Champion's aim toward productive excellence.

To benefit the ambitious employe, Champion Paper stresses internal vocational training courses with diversified curricula, while extending full cooperation to community adult education endeavors and also to several universities.

In most cases where Champion participates in adult education activity, the firm provides key men from supervisory or specialist ranks to serve as instructors in courses on pulp and paper. Complete and thorough records are kept on all employes taking part in the company's training program.

Interview impressions are made a matter of the employe's record and a battery of basic employment tests add to the record. A card file system, compiled as a result of these tests, makes immediately available a comprehensive record of the employe's formal training background, his mental capacity, his knowledge of applied arithmetic, his mechanical comprehension, his occupational interests, his trade skills and other information.

CHAMPION PAPER SUPERVISORS gather regularly for conferences. This dinner-chatting group is comprised of (l to r) Vice President Dwight J. Thomson, Texas Division Supervisor George Lilley and Vice President and Texas Division Manager W. R. Crute.

Trainee Pool

Once Champion has acquired and reviewed the employe's record, he is usually assigned to the Trainee Pool, where a number of varied jobs may be confronted, leading to practical placement on his first permanent job. Champion makes no claim that it places every employe in the job most ideally suited to his individual liking or qualifications and there is no "coddling," but it does have records to substantiate that the program insures a more logical placement by virtue of a continuous study and the application of advanced methods.

RAY G. GARRETT, the author, with Champion 24 years—as Research and Quality Control Technician, as Finisher, as Publications Editor and in both Employe and Community Relations. Is Navy W.W. II veteran.

Time spent in the Trainee Pool by the new employe is of much value to his future role with the company, inasmuch as a further evaluation can be made of his potentialities and interests. When merited, follow-up tests are made at intervals. The procedure will be repeated on the employe's request or a request by his supervisor.

But as a matter of routine procedure, the trainee's performance is rated by his supervisor every two weeks three times, then at six month' intervals. This is regarded as essential for company purposes to aid in proper placement.

Champion has also carried on for several years a program for training of supervisors. Management regards its supervisory staff as an important part of the "management team." Regular monthly conferences are held for supervisory groups for mutual discussion of problems and the formation of standard procedures.

Vice President Dwight J. Thomson, director of Champion industrial and public relations, asserts: "The increasing demands of competitive American industries have thrown sharply into focus the necessity of strengthening management teams."

Under this program, our company hopes to create a reserve of trained management personnel whose planned development will make possible the filling of management needs as they arise. Of equal importance, the program will aid in continued growth of supervisors now on the job.

The man our company seeks for management positions is an "uncommon man," and an opportunity to exhibit his worth will be sought, yet initiative to gamble on himself must be apparent, and faith in what he is doing and in his company. But an employe participating in a training course at any level is not treated as a "special person" with promotion guaranteed.

TWO GENERATIONS HEAR HADLEY

HARRY E. HADLEY (at right), next President of the Superintendents Association, in picture by PULP & PAPER just after he finished address on problems of a foreman at Kalamazoo meeting. CARL F. HOELDERLE (left), Lake States District Mgr. for Anheuser-Busch Corn Products and Affiliates' Representative in the Michigan Supts., and RON HAMILTON (middle), a Kalamazoo student at Michigan State College and President of the Ts'ai Lun Honorary Society for pulp and paper student majors at MSC, discuss the talk with Mr. Hadley, who was made an honorary member of Ts'ai Lun Society. Mr. Hoelderle, 21 years with Anheuser-Busch, has a boy almost as old as Ron.

A Foreman Stands Uneasily in "No Man's Land"

By Harry E. Hadley
Mill Manager, The Gardner Board & Carton Co., Middletown, O.

THE BIGGEST PROBLEM of a mill foreman today is his lack of realization that a problem exists. The foreman is often blinded to this by the urgent necessity of getting production.

In the old days a foreman held his position just as long as he could whip everyone working under him. More recently, if you knew something about an operation a little better than anyone else, it made you a foreman. That day is gone, too.

Now a foreman must know a vast amount of things and he must also know how to get people to do things.

But he is in a precarious position. For, generally speaking, the unions won't have him. And management doesn't want him. This is his difficult dual relationship.

The Man Between

More often than should be the case, it takes management only five minutes to decide who will be a foreman. But all the men it selects for foreman are not true foremen. They may have worked in the mill for 25 or 30 years. But they know only one operation. They have no economic training. They have the highest standard of loyalty. But they suddenly find they do not fit.

(Excerpts from address before Dec. 17 meeting in Kalamazoo of Michigan Division of Superintendents Association. Mr. Hadley, now first vice president, becomes national president of the Superintendents next June.)

For today unionism has made it necessary for foremen to know about people. The greatest problem facing any foreman today is people.

Management names a foreman and it expects him to instill enthusiasm and industriousness among his crew. But, perhaps his crew won't accept him. It isn't an unheard-of thing in management for a management man to think every man above him is a no-good so-and-so. Well, lots of workers feel that way about any and all foremen. This is what a foreman must overcome right at the start.

It is idealistic to think that a good supervisor can sit back and when anyone is in trouble, they will come to him to be straightened out. But foremen can't do that. As a rule, the workers under a foreman won't go to him. They are afraid of what they think he stands for.

He is dealing with people, and people are not logical—they are emotional. All the troubles that any of us have with people are emotional. The emotions of people are tremendous forces.

The Worker's Basic Needs

Workers are fundamentally honest. They have strong pride in themselves and they want to do a good job. They want to feel they are part of a successful enterprise or a successful department of that enterprise. These are his basic needs—a feeling of dignity, a sense of being a part, a part of success, and being productive, because he lives with production.

The foreman is faced with this problem of creating the right environment. He does it with a tone of voice and in many other ways. The worker goes home and talks with his wife about the foreman. The foreman can either be a big man or a hated boss.

The three fundamental ways for a foreman to solve this problem are:

1. To dominate it.
2. To compromise it.
3. Or to get all the facts he can, and deal with it according to the common law of man.

That way will solve it. The other ways will solve it, too, but tomorrow you will have another problem.

The other ways smack of paternalism and the worker doesn't want that. Or they deprive him of a feeling of security, which he needs. Management assumes too much when it thinks that people will react just one way to some action by management. People won't, and a foreman is wrong, too, when he falls into that error.

The greatest raw material we have is

Preview of Next Superintendents Leadership

THE MICHIGAN SUPERINTENDENTS who heard Harry E. Hadley talk on the human problems of foremen, had a "preview in action" of the next leadership of the National Superintendents, who will take over at the Montreal convention in June.

For Mr. Hadley, mill manager of The Gardner Board & Carton Co., Middletown, O., moves up to the presidency of the Superintendents from first vice president. And the man who introduced him and handled principal arrangements—Olin W. Callighan, technical director of Edgar Brothers—is to be next chairman of the Superintendents Affiliates.

Mr. Callighan, in his introduction, said Mr. Hadley would talk about "the man who is lost in the shuffle of modern industry—the foreman."

Mr. Hadley was recently elected president of the school board of Middletown, where he has responsibilities for 7,000 school kids. He started in the paper industry working on the screens. He worked up from the ranks through boss machine-tender but was only a superintendent for six weeks before his promotion to mill manager.

Meanwhile, he has also been a teacher and has a rich background for instruction and training.

In Kalamazoo, he had a reunion with his niece, Virginia Verdon, and her husband, James Verdon, representative of Huyck felts in the Midwest, and their family. Mr. Hadley's late brother, who was in the Kalamazoo industry, was Mrs. Verdon's father.

AT KALAMAZOO MEETING

TOP TRIO are officers of Michigan Superintendents Division who attended meeting addressed by Mr. Hadley—l to r: HARRISON KINDIG, Personnel Mgr., MacSimBar Paper Co., Div. of United Biscuit, Otsego, Mich., Vice Chairman and Acting Chairman at December meeting; CLAUDE BOS, Second Vice Chairman and Coating Supt., St. Regis, Kalamazoo, and MARSHALL RUTZ, Secy.-Treas. and with KVP's Production Dept. in Parchment, Mich.
Below—Other leaders present (l to r): DR. ALFRED NADELMAN, head of newly created Pulp and Paper Dept., Western Michigan College (it used to be a "curriculum"); OLIN W. CALLIGHAN, Tech. Director, Edgar Bros. Co. (recently rounded out 25 years with that firm), who introduced Mr. Hadley, and ROBERT T. ELIAS, Associate Prof. of Pulp and Paper Technology at Western Michigan.

people. We must depend upon people, so we had better understand about people.

Good Men Make Good Men

We find in our mill that the best foreman tends to have the best machinetender; the best machinetender tends to have the best backtender; and so on down the line. Good men make good men.

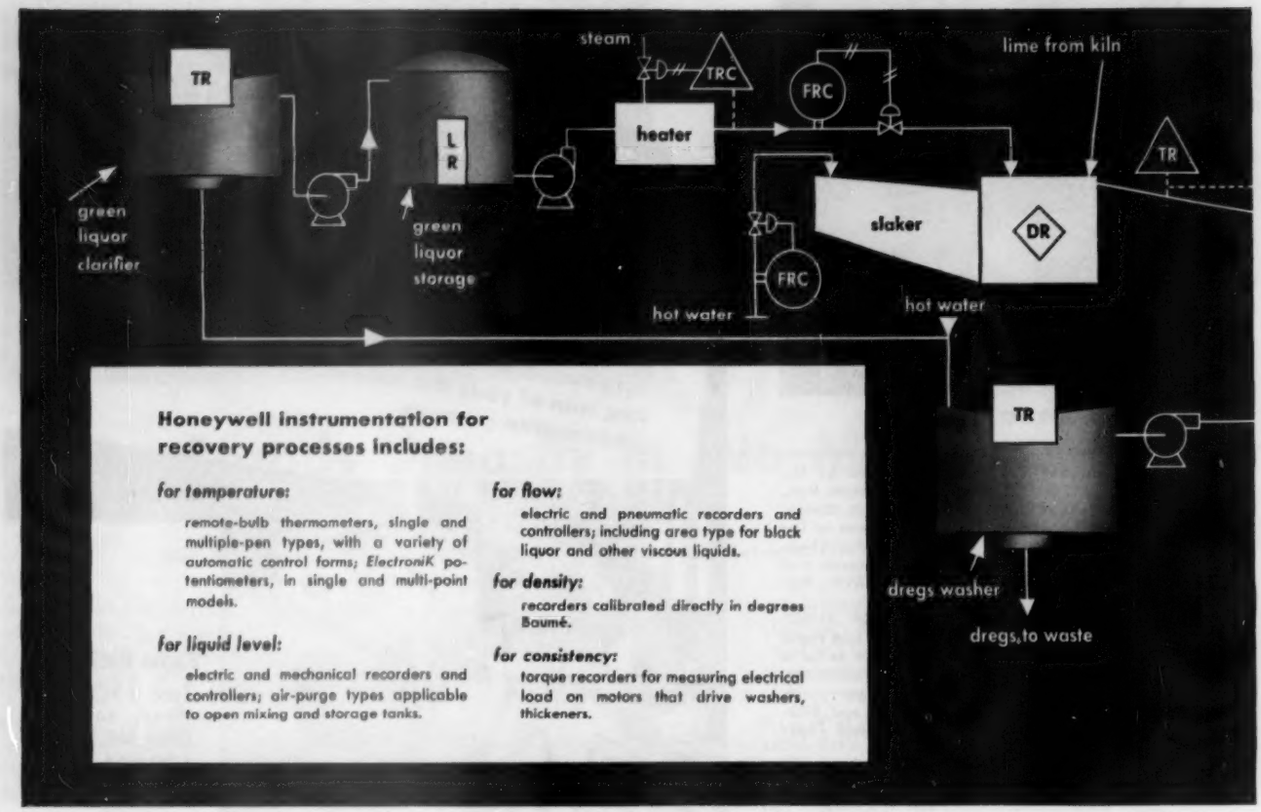
If we watch out about the little things, the crew will watch out for the big things.

It is all right for workers to have little fears of little things. But we have no right to promote the big fear—fear of the boss. We have no right to destroy the dignity of a worker and we should promote that dignity. Talk to a worker in any tone of voice, but don't ever destroy that dignity or insult his intelligence.

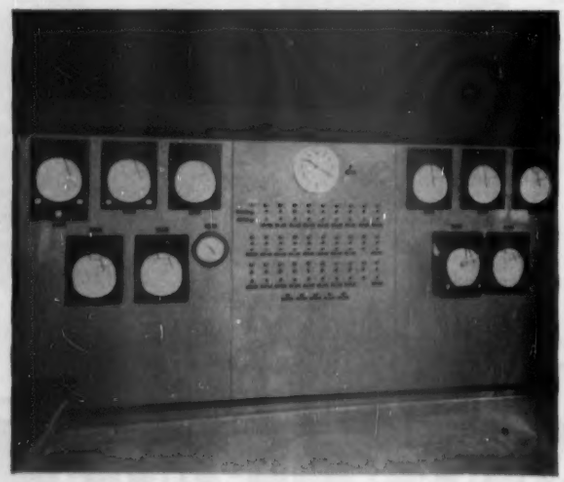
Albert D. Merrill Is Honored by Clarkson Alumni

Honoring his many services to Clarkson College, Albert D. Merrill, president of Chemipulp Process Inc. since 1946 and active in the pulp and paper industry for nearly 40 years, was recently honored by Clarkson alumni at a testimonial dinner in Watertown, N. Y., attended by the college president, William G. Van Note of Clarkson.

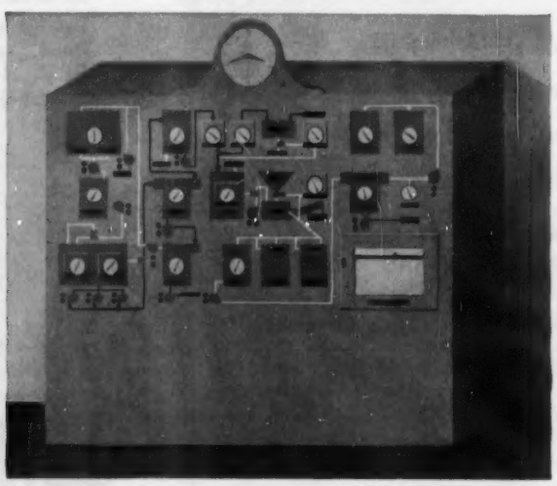
Born in Malone, N. Y., Mr. Merrill returned to Clarkson to graduate in 1913, after staying out for three years after his junior year and marriage in 1909. He was with St. Regis Paper Co. in 1915 and chief engineer for Stebbins Eng. & Mfg. Co. from 1916-29, when he became vice president and treasurer of Chemipulp.



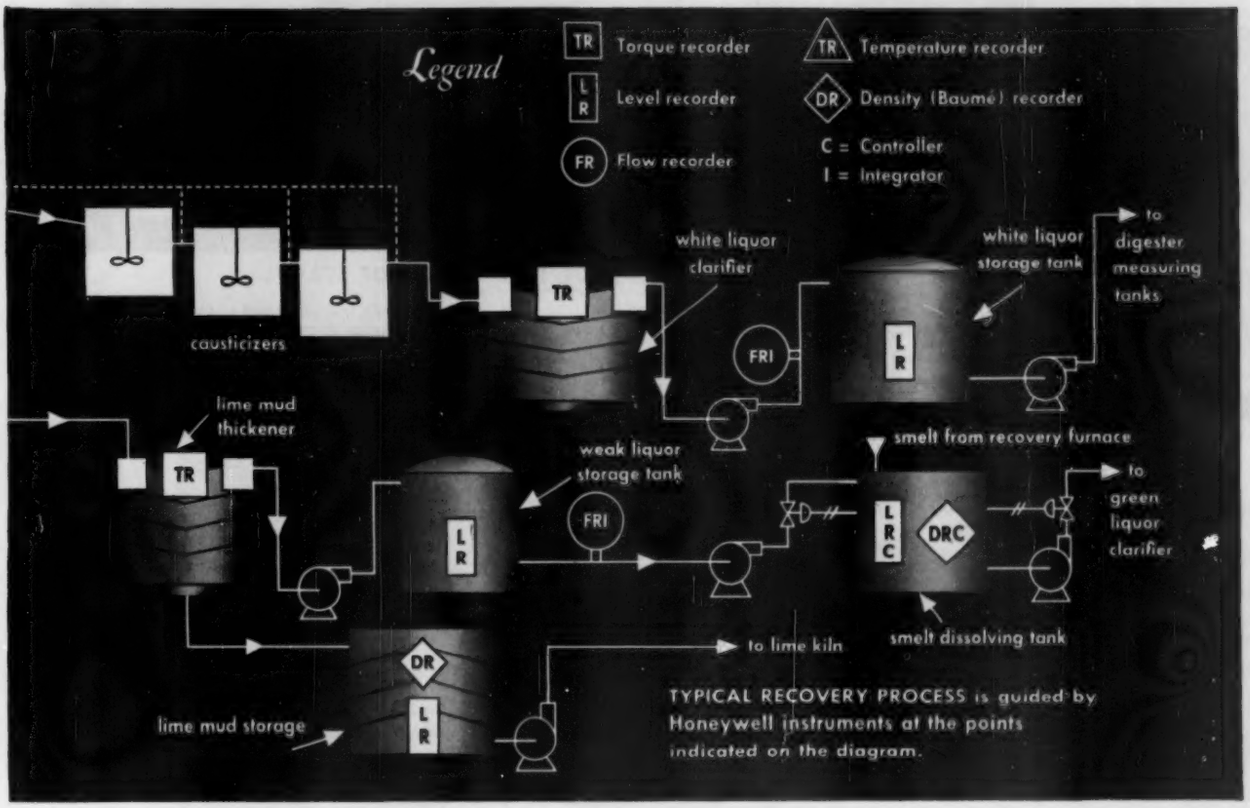
Greater chemical recovery *with complete*



Complete instrumentation for individual recovery processes is engineered by Honeywell into integrated control boards. These may be panels like this one . . .



. . . or graphic panels, like this proposed design which concentrates all control of the recovery operation into a compact, easily understood unit that one man can operate.



in recausticizing systems *instrumentation* . . . by Honeywell

THE recovery process, often the key operation in setting mill efficiency, can be kept functioning at peak economy and maximum safety through the use of Honeywell instrumentation. This complete line of instruments fills every vital assignment of measurement and control throughout the recovery process.

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To assure your mill of realizing the full, uninterrupted benefits of modern control, Honeywell's nation-wide service organization stands ready to give your instrumentation prompt, experienced attention any time you need it.

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MINNEAPOLIS-HONEYWELL REGULATOR CO., *Industrial Division*, Wayne and Windrim Avenues, Philadelphia 44, Pa.

● **REFERENCE DATA: Write for Bulletin 2802, "Instrumentation for the Paper Industry."**

MINNEAPOLIS **Honeywell**
BROWN INSTRUMENTS
First in Controls

Trees of World . . .
Uses of Wood . . .
Conservation

ILLUSTRATING THEME OF THIS "STORY OF STAMPS"

FIG. 1. (l to r): (a) 100 Tree Species are shown in stamps—this is from French West Africa. (b) Wood Use illustration—a pulp and paper mill in Canada. (c) Conservation of Forests promoted by Japanese stamp.

Postage Stamps Tell Forest Industries Importance

By Berwyn B. Thomas

Who made the collection dealing with trees and forest industries

(Photography by W. J. McCleary)

FEW PEOPLE, probably, would think of the Post Office as a good place to advertise, but when it chooses it can be one of the best. It offers the advertiser an attractive, low-cost, mass-produced medium, frequently used by everyone and widely distributed throughout the world. What is this advertising medium? The postage stamp.

Illustrations used on postage stamps are generally of persons or scenes significant to the countries which issue them. Often, these have dealt with forests and forest industries: The story of the occurrence of trees around the world, the methods of harvesting them and the uses to which they are put, and the need for conservation and improvement of the forests (Fig. 1).

A collection of postage stamps based on this theme was prepared originally for display at the annual Forest Festival at Shelton, Wash., which in 1953 celebrated the centennial of logging in that area. In its mounted form the collection includes about 180 stamps (A list has been published.[1]) Representative groups of these stamps are shown with this article, and this written commentary is intended to describe their significance.

BERWYN B. THOMAS, the author. He is a Research Chemist for Rayonier Incorporated, at its central laboratories in Shelton, Wash.

A Fascinating Story In Stamps

The author of this fascinating story of stamps is Berwyn B. Thomas, research chemist in the Central Research Laboratories of Rayonier Incorporated, major producer of cellulose, at Shelton, Wash. The article was written during wee hour watches as a volunteer in the Ground Observer Corps in the Olympic peninsula forests nearby Shelton.

His inspiration for making this unusual collection of forest and forest industry stamps came about in connection with the annual Forest Festival at Shelton, where Rayonier operates a sulfite pulp mill and Simpson Logging Co. has a big sawmill, plywood plant, fiberboard plant and other operations.

W. J. McCleary, who made the photographs of the stamps, is employed at Rayonier's Research Division as technical photographer.

This article was especially prepared for PULP & PAPER.

The Theme: Trees Around the World—Uses of Wood—Conservation

Depletion of our natural resources has been much discussed in recent years. Modern civilization demands manufactured goods, chemical products, and foods at an ever increasing pace. Yet our resources of oil, coal, minerals—even the soil—when once used or dissipated can never be replaced.

Throughout history and all over the world forests have been among the greatest raw material sources. Trees have been a necessity of life for fuel, tools, shelter, and for their fruits as food. Modern technology has added paper, fibers, chemicals, and other uses for wood, and still more developments can be expected in the future. Because of the diversity of its applications, wood has been called the "universal raw material."

Yet history also records great nations which have grown rich on the wealth of their forests, only to dwindle when the trees were gone and the bare land ruined by erosion. The timbers of the Lebanese cedars built the Temple of Solomon, but little remains of them today. China once had extensive forests but is now swept by recurring floods from the eroded earth left bare by their removal.

If this is not to happen again—if wood is truly to be the universal raw material—the growth of the forests must be maintained equal to the rate of use, and the best and most useful trees must be made to grow as rapidly as possible. The conservationist and the botanist say these problems can be solved, and much has already been done, particularly by the pulp and paper industries. One of the essential factors in the attainment of the goal is public recognition of the problems and cooperation in working out their solutions.

FIG. 2. (Top, l to r): (a) Western pine, USA; (b) Spruce in Black Forest, Germany; (c) Forests of Finland. (Below, l to r): (d, e) African jungles; (f) Araucarian pine; (g) Mango.

The Collection Is Described

Forests and Trees. General forest scenes have been pictured on stamps by countries in the Americas, in Europe, Polynesia, and Africa (Fig. 1a, 2a-f). In much of Asia large forests are a thing of the past, and their absence is reflected in the scarcity of postal forest pictures.

It has been estimated[2] that nearly 100 species of trees can be identified on stamps, though many others of unknown species have also been pictured and many appear frequently. Some recognizable species are shown in Figs. 2 and 3; these and others include pines, cedars, palms, oaks, mango, mahogany, labuan, the acacia and baobab of legend, and bamboo, which is often used as timber. The distribution of tree types over the world is evident, too. Palms abound on stamps from the tropical countries, especially the Pacific islands, and softwoods on issues from the temperate regions. Hardwoods are more generally distributed.

FIG. 3. (Top, l to r): (a) Baobab; (b) Palms; (c) Cedar of Lebanon; (d) The Charter Oak. (Below, l to r): (e) Bamboo; (f) Tree of Panama, *Sterculia apetala*; (g) Giant Kauri; (h) Pitch pine.

A few individual trees have been made famous in history, such as the Charter Oak (Fig. 3d), the historically similar Proclamation Tree of Australia and the great Tree of Panama (Fig. 3f). Cuba has especially honored its Tree of Fraternity.

Certain species of trees have acquired symbolic qualities through traditional use, such as the olive branch of peace, the laurel of victory, the palm of honor, and the oak of strength. Some of these appear in Fig. 4a-c. Another symbolism for which trees are used is the sprouting of a new shoot or planting of a seedling to represent the birth or renaissance of a nation. This has been used postally by Germany and Czechoslovakia in 1919 and by Italy in 1946 (Fig. 4e).

FIG. 4. SYMBOLISM: (Top, l to r): (a) Oak—strength; (b) Olive—peace; (c) Palm—honor; (d) An oasis. (Below, l to r): (e) Sprouting stump representing rebirth of defeated nation; (f) Clearing for colonization; (g) Japanese plum; (h) Yugoslavian scene.

In the desert regions trees make oases, where life is possible. In the colonization of America, on the other hand, dense forests had to be removed to make way for settlements. Both scenes have appeared on stamps (Fig. 4d, f).

Trees planted in ornamental gardens or avenues have been pictured on many stamps, such as those of Japan and Yugoslavia shown in Fig. 4g-h. Poems about trees have been recalled by stamps (Fig. 3b), and Russia has reprinted in full color paintings by famous artists which show trees in fields and forests (Fig. 5a).

Since living trees yield many prominent agricultural products, there are numerous stamps picturing all kinds of fruits, chicle,

FIG. 5. (Top, l to r): (a) "Field of Rye," painting by Shishkin; (b) Tapping rubber trees; (c) Coffee. (Below, l to r): (d, e) Woodcutters; (f) Use of elevated platform; (g) Use of power saws.

rubber, coffee ("The coffee of El Salvador is the best in the world") and other products (Fig. 5b-c). These are touched on only lightly in this collection as they are outside its primary purpose.

Logging. Turning now to cutting of timber for use, we find numerous postal illustrations of the steps in this process (Fig. 5-6). Several European countries have shown the woodcutter at work with axe or saw. Italy has depicted the sawing of planks with the old-style pit saw.

Nigeria, Cameroon, and British Honduras have all shown the felling of trees from elevated platforms, but their practice differs from that of the Pacific Northwest in that the platforms extend around the tree and are supported by poles (Fig. 5f). Mahogany is one species cut in this manner. Newfoundland over 40 years ago showed a group of lumberjacks standing in their camp at Red Indian Lake.

A 1949 Canadian stamp pictured the use of portable power saws (Fig. 5g). The fallers in this picture do not seem very safety-conscious; one man wearing a soft hat has put his saw down and turned his back on a falling 30-inch trunk while another man continues to cut a tree only 20 feet away!

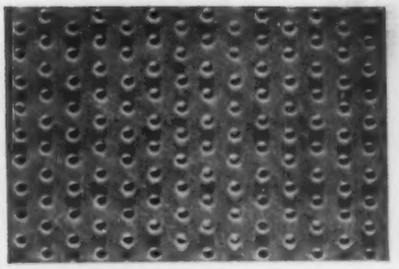
FIG. 6. (Top, l to r): (a) Ox team; (b) Hand labor; (c) Elephants with teak logs; (d) River run of logs. (Below, l to r): (e, f) More river runs of logs; (g, h) Primitive housing and tools.

Methods of handling logs which have been pictured postally include (Fig. 6) hand labor, ox teams in the Newfoundland snow, and elephants in the teak forests of Burma. Truck logging appears on a new issue from British Honduras, while Yugoslavia suggests rail transport. Rafting of logs in rivers is a very popular subject; at least 8 countries in Europe, Africa, and tropical America have shown river runs ranging from single logs to great rafts bearing their own crew huts (Fig. 6d-f).

Use of Wood. The users of wood which are shown on or suggested by postage stamps are almost innumerable. Primitive weapons, fuel, tools, and shelter were largely wooden (Fig. 6g-h), and many such uses continue today. One of the largest uses of wood is for lumber in housing and other construction. Many wooden buildings have been shown on stamps. A recent U. S. commemorative pictures the old frame home at Oyster Bay, N. Y., of Theodore Roosevelt (Fig. 7a). A Polish stamp shows the stark charred beams of a bombed-out building after the blitzkrieg of 1939, while Austria depicted wooden scaffoldings in a reconstruction issue (Fig. 7b-c). House furnishings, also, are largely wooden (Fig. 7d).

Another major wood consuming field is the transportation and

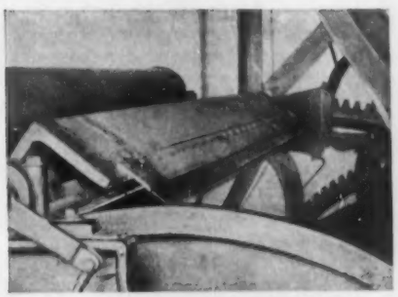
Screen Plates



Efforts to find screen plates with non-enlarging perforations led to trial of thin-gauge Inconel by a Western manufacturer of book groundwood whose plates were corroding beyond use in less than 5 months. This is one of four original plates of .018" Inconel with .045" perforations, photographed after more than 36 months of continuous use. The mill found "no . . . measurable enlargement of the perforations . . ."

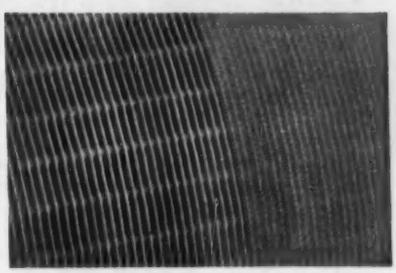
Are replacements costing you TOO MUCH?

Doctor Blades



"K" Monel doctor blades. The mirror-like appearance of the roll itself shows how well the "K" Monel doctor blade on this dryer protects the surface. Even when operated continuously, "K" Monel blades require a minimum of regrinding. Blade surfaces do not rust, and they resist roughening and damage from corrosive paper stocks, sours, cleaners and chemicals.

Winding Wire



Monel winding wire is used over structural rods of cylinders, over drainage strips of drums, and as binding wire over wire cloth faces of filters. Available with a tensile strength as high as 140,000 psi, Monel wire can be wound on its own diameter without fracture. It possesses high resistance to fatigue under corrosive conditions, gives from 2 to 15 times the service obtained from other materials.

You can be sure of this. Frequent replacements always cost too much.

For frequent replacements can be avoided.

You find that out when you use Inco Nickel Alloys like Monel®, "K"® Monel and Inconel®. They last longer (and require less maintenance) because they resist corrosion, abrasion and wear.

And you save money in at least three ways. Here's how you figure it:

On every replacement that you *don't* have to make, your first saving is the *price of materials.* Then you save the entire cost of *labor for installation.* And your third saving is the value of *production ordinarily lost* during downtime.

Count your downtime for honing and grinding doctor blades, too. That has to be done periodically, no matter what blade material you use. But "K" Monel runs longer between regrinds, and helps cut downtime to a minimum.

Inco Nickel Alloys hang up excellent performance records on jobs where many materials find the going rough. You can easily prove this. Just try a replacement part of Monel, "K" Monel or Inconel on machines that are hard hit by corrosion and wear. Then watch how they stand up!

If you'd like advice and help in picking the right metal for any corrosive pulp, paper or board mill job, don't hesitate to call on us. And remember, it is advisable to place equipment orders with your supplier well in advance of scheduled use.

Your local Distributor of Inco Nickel Alloys can give you the latest information on availability from warehouse and mill. We'll be glad to send you his address if you don't have it handy.

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FIG. 7. (Top, l to r): (a) Home of Theodore Roosevelt; (b) Ruins of Warsaw, 1939; (c) Reconstruction, Austria, 1947. (Below, l to r): Furnishings of Lenin's study; (e) Stagecoach; (f) Glider construction; (g) The Mayflower.

communication industries. In this field postage stamps have pictured wooden ships, stage coaches, covered wagons, early airplanes and gliders (Fig. 7e-g), railway ties, freight cars and wooden packing cases (Fig. 8a). Several early woodburning locomotives and ships have also appeared (Fig. 8b). The electrical power, telephone, and telegraph systems, which tie the earth together with their pole-borne wires, have been honored by the U. S., Bulgaria, Romania, and Switzerland (Fig. 8c-d). Fence posts and mine timbers have also been depicted.

FIG. 8. (Top, l to r): (a) Wooden cars and crates; (b) Wood-burning locomotive; (c, d) Telegraph and telephone poles. (Below, l to r): (e) Paper mills, Grand Falls, Nfd; (f) 40th anniversary of Associated Press; (g) Third World Forestry Conference, Finland—a pulp mill; (h) Literacy campaign.

Pulp and Paper. Next there is the manufacture of pulp and paper, which in 1952 consumed 26,500,000 tons of wood in the United States alone. The U. S., however, has never directly recognized the industry postally.

On the other hand, the first paper mill in Newfoundland, built by British interests at Grand Falls, was shown on a Newfoundland stamp of 1910 (Fig. 8e). The Corner Brook mills have also been shown on the issues of 1930-1949. A Finnish stamp honoring a forestry conference showed a pulp mill (Fig. 8g).

Canada, in 1952, issued a striking stamp to advertise its leading industry (Fig. 1b), which might be said to portray the neatest job of continuous delignification of wood into paper that has yet been devised.

FIG. 9. (Top, l to r): (a) Textile industry; (b) Automobile tires; (c) View of Pearl Harbor from Japanese planes. (Below, l to r): (d) Japanese alcohol monopoly; (e) Carl von Linné (Linnaeus); (f) Arbor Day; (g) Italian Festival of Trees.

Paper itself has been recognized postally in the anniversaries of early printing presses, famous books, the Associated Press (Fig. 8f), and the famous newspaper publisher, Joseph Pulitzer. The availability of wood-fiber papers in the past century has made possible the rapid rise in literacy and the spread of knowledge among the earth's people (Fig. 8h). In fact, it may be considered responsible for the large number of stamp collectors and the great profusion of stamps issued.

Other large quantities of wood are more highly refined to chemical cellulose. Some of the uses of this product which are found on postage stamps are rayon for the textile industry and auto tires (Fig. 9a-b), photographic film, plastic objects and explosives. (The stamp shown in Fig. 9c is a view of Pearl Harbor made from one of the attacking Japanese planes.)

The waste liquors of the sulfite pulping process are a great potential source of future chemical products. One of the best developed uses for waste liquor is its fermentation to ethyl alcohol. An alcohol still and the formula C_2H_5OH have actually appeared on a Japanese stamp (Fig. 9d).

Conservation. Finally there are stamps representing the third part of the theme—conservation—which is so necessary if all the demands of the foregoing uses of wood are to be met. Carl von Linné, or Linnaeus, the first great systematic botanist, has been pictured by his homeland, Sweden (Fig. 9e). Botanical gardens have been established to study and display the growth of trees (Fig. 9f) and national parks to preserve samples of virgin growth for future observers. Such gardens and parks have been shown on stamps by the U. S., Russia, Japan, Brazil and other countries.

Forestry societies are active in most countries where wood-using industries are prominent, and have been honored postally by Norway, Colombia, and Finland (Fig. 8g). The Norwegian issue is a portrait of Axel Heiberg, founder of the Norwegian society.

Public interest and assistance in programs of reforestation and forest management are encouraged by several means with postage stamps. Arbor Day, established in this country in 1872, was commemorated by a 1932 stamp (Fig. 9g). Similar issues have appeared as promotion in Japan (Fig. 1c), the Philippines, and Italy (Fig. 9h). The future rural owners and farmers of our country have been trained in conservation or forest management by the Boy Scouts and Girl Scouts, the 4-H Clubs, and the Future Farmers of America. All these organizations have been honored by recent commemorative stamps.

In addition to these postage stamps, the government has given postal aid to conservation through the use of the slogan—"Only YOU can prevent forest fires"—in the cancelling machines of many post offices. Some postage-meter slogans have been seen, especially from European sources, which include symbols and publicity for forestry and wood-using industries.

This, then, is the story which we have found illustrated in the world's stamps—the availability of wood and its unique properties have brought it into wide and diverse use throughout the world. These uses will increase, and the supply must be guarded and maintained, for *there is no other renewable raw material for all our future needs.*

References:

1. Thomas, B. B., *Topical Time 4*, No. 2:27-29 (Mar., 1953); publ. by American Topical Assn., 3306 N. 50th St., Milwaukee 16, Wisc.
2. Bailey, F. D., *Topical Time 4*, No. 2:45 (Mar., 1953); also in *Biological Tid-Bits*, April, 1953, p. 2-9 (another publication of the above association).

1. This is New Evaporation Plant

WITH TOWERING sulfite mill behind it, whence it gets spent liquor for processing, here is new evaporating plant at Northern Paper Mills subsidiary of Marathon Corp. in Green Bay, Wis. It is largest of three such plants in Wisconsin mills operations. Note 100,000 gal. storage tank and tank truck which also supplies waste liquor for road binding in Green Bay area.

2. Key Men Had Important Roles

H. W. GOCHNAUER (left), Chief Engineer of Northern, and NATE L. MALCOVE (right), Technical Superintendent, had important responsibilities in planning and design of evaporating and burning plant in Northern Paper Mills. Here they are observing samples of waste liquor, checking consistencies of liquors for process.

Picture Story Tells Steps in Sulfite Evaporation

3. Here's Where Liquor Comes From

BLOW PITS in sulfite mill at Northern Paper Mills supply spent liquor for evaporation at 10 to 12 percent solids. DARROLD TRUDEAU, Blow Pit Helper, is checking the spray. Northern began construction for its new additions in Feb. 1951, but difficulty in obtaining special stainless steels required to handle this liquor caused delays.

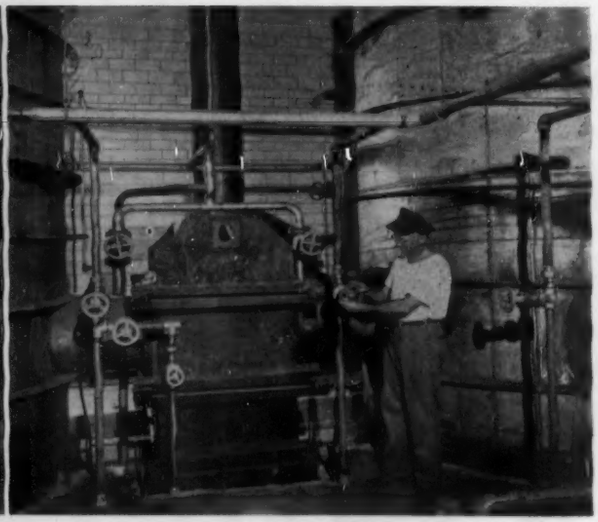
WISCONSIN'S THIRD AND BIGGEST sulfite spent liquor evaporation and burning plant is disposing of effluent from the 140 ton sulfite pulp mill of Northern Paper Mills, subsidiary of Marathon Corp., at Green Bay, Wis., and creating added energy for that big tissue mill's operation.

The story of this plant is told in pictures for PULP & PAPER readers in the series of pictures on these pages. Major equipment for the plant are the Conkey flat plate Rosenblad switch system evaporators manufactured by General American Transportation Co. Two boilers were converted to burn the sulfur and an entirely new boiler provides steam to run the evaporators.

The evaporators are designed to handle a feed of 126,250 lb. per hour at 10 per cent solids and 175 F. and produce a product of 19,450 lb. per hour at 65 per cent solids and 211 F. The plant is designed oversized by 25 per cent for future contingencies. The economy of the

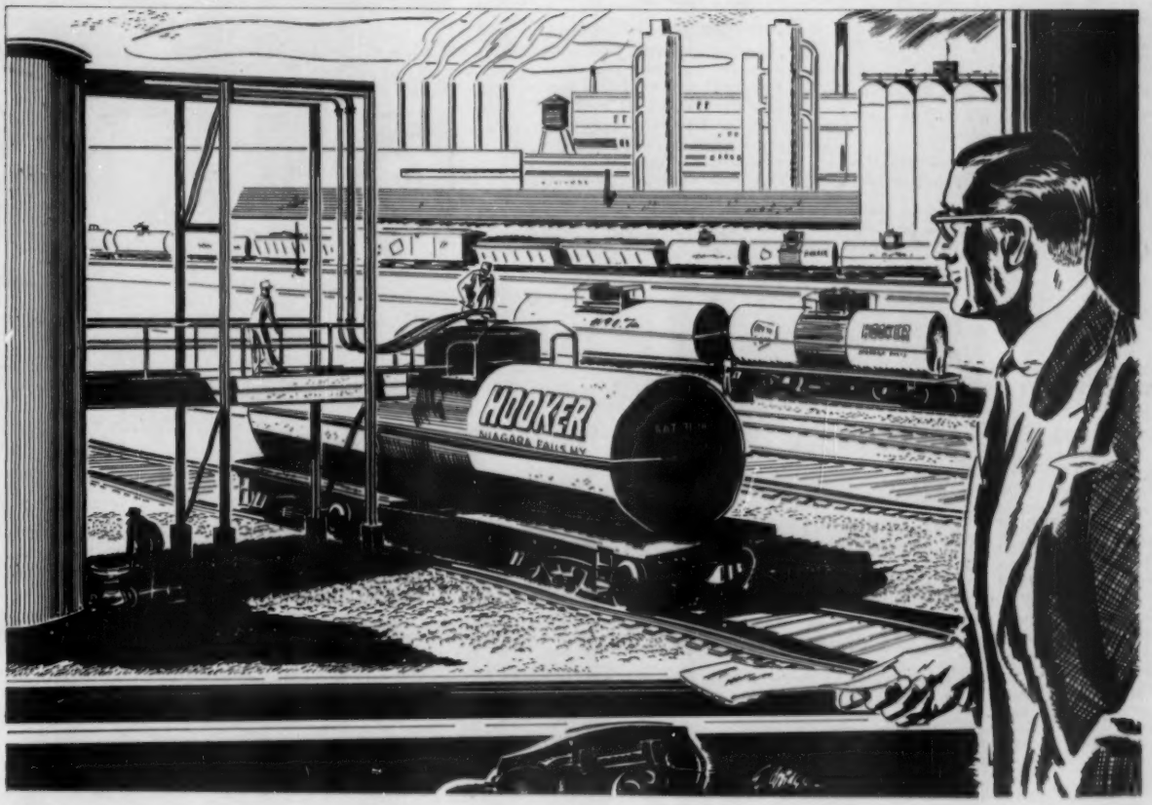
4. Controls are Set for Evaporating Process

FOXBORO AND MINNEAPOLIS-HONEYWELL instruments are important in process. Motors and switchgear were supplied by General Electric and Marathon Electric. JERRY LUEBKE (left), Project Engineer on evaporating process, explains Foxboro Electronic temperature recorder to FRANK MINTJAL, one of crew of four who operate the plant.



5. Evaporation Process Begins Here

GEORGE GRALL, Evaporator Plant Operator, opens valve on American Heat Reclaiming Corp. spiral heat exchanger to release non-condensible gases which interfere with heat exchange. Behind him is one of five big stainless steel vapor bodies supplied by General American Transportation Co.'s Process Equipment Division. They collect steam for Rosenblad switch system.



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From the Salt of the Earth

HOOKER ELECTROCHEMICAL COMPANY

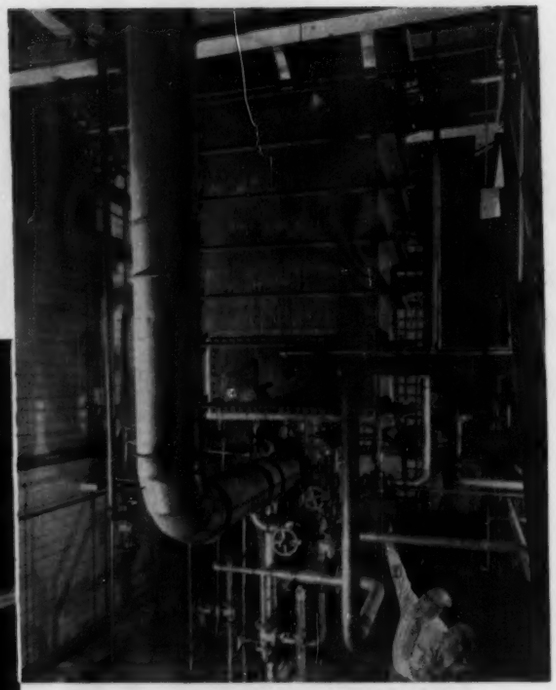
plant is designed to evaporate 3.45 lb. of water per lb. of steam.

The system includes a spiral heat exchanger in the liquor path between the fourth and the first effect to extract the heat from the condensate. The condenser water required is 2,700 g.p.m. at maximum temperature 85 F.

The plant removes by evaporation 106,800 lb. of water per hour. Thus the plant removes by evaporation 5.5 lb. of water to produce one pound of the 65 per cent concentrate.

6. *And This is Rest of Picture*

THIS VIEW IS ON FLOOR below preceding picture, showing lower portion of heat exchanger. It extends up into fourth floor of plant. R. G. SMITH, Pulp Mill Supt. at Northern, is pointing out features of heat exchanger to FRANK DONARSKI, Asst. Pulp Mill Supt. Note big section of all-stainless steel piping. Northwest Copper Works of Portland, Ore., furnished stainless steel pipe and fitting- for the evaporation system.



7. *Rosenblad Switch System is Demonstrated*

AFTER GOING THROUGH four-effect evaporator system, liquor flows to 10,000 gal. storage tank and then to General American Conkey Plate Type Rosenblad concentrater where forced circulation brings it up from 52 to 65 percent solids. JEROME CLARK, Evaporator Plant Operator, demonstrates switching of hydraulically operated vapor valve. Most valves in plant were stainless steel valves fabricated by Crane Co., Chicago.

8. *Last Step is Burning of Liquor*

NORTHERN PAPER MILLS equipped two furnaces for burning of this concentrated liquor, along with powdered coal. Two boilers were converted, and an additional entirely new Riley boiler of 135,000 pph provided steam for evaporating plant. JIM TIPPETT (standing), Chief Power Engineer, and BILL ENGLEBERT, Fireman, demonstrate liquor fire adjustment. From boiler plant storage, liquor goes to atomizer where it is vaporized with steam and sprayed into boiler.

Longview Fibre Expands As Farm Produce Uses Paper

Longview Fibre Co., Longview, Wash., ordered two additional 85-in. Langston corrugators for its Oakland (Calif.) and Los Angeles plants. Both are operating mostly on a three-shift basis, and this will permit expanded sales and steady two-shift operation to provide better service to the trade, according to R. P. Wollenberg, vice president and manager of container operations.

Additional printer-slotters and joining equipment have also been purchased to permit balanced two-shift operation. Most building construction to house additional equipment has been completed and installation will be completed by early 1955.

New business resulting from conversion of fruit and vegetable shipments from wood to fiber is a major reason for this expansion at cost of over a million dollars.

R. P. (DICK) WOLLENBERG—Explains expansion—more fruit and vegetables packed in paperboard.

Mitchell Thom Goes Back to Mexico Mill

Mitchell Thom, former British Columbia paper mill superintendent, who in recent years has been engaged in construction and improvement of mills in Mexico and Guatemala, is again expecting to answer a call in Mexico, returning to the United Shoe & Leather Co. as mill manager of its paperboard division.

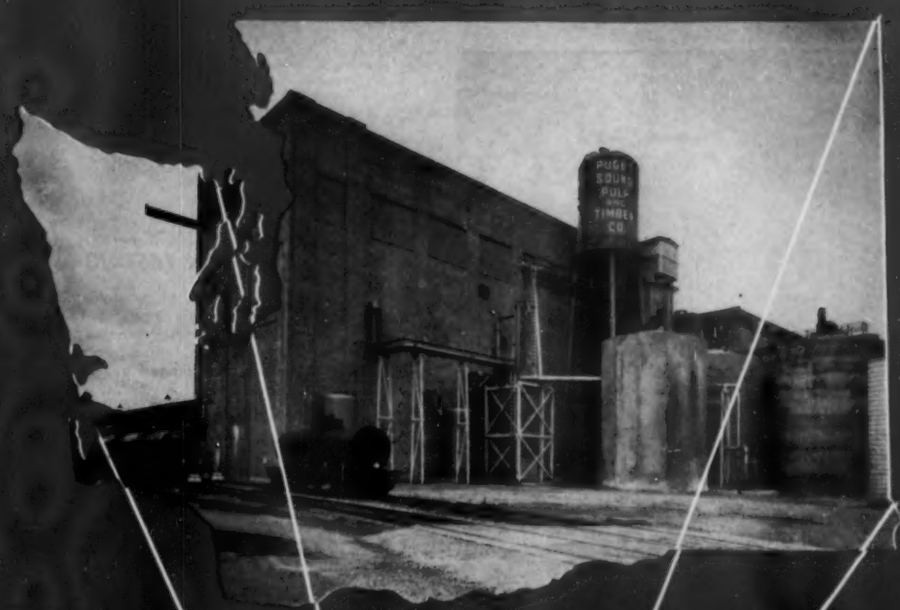
He and his wife, Anna, recovering from serious injury which required a spinal fusion and wearing a cast from arms to knees for four months, have been living with their daughter, Mrs. R. L. Timothy, 320 Tuttle Ave., Watsonville, Calif.

Michigan Students Form Ts'ai Lun Society

Students working for pulp and paper degrees under Dr. Alfred H. Nadelman at Western Michigan College in Kalamazoo, now have an honorary fraternity—the *Ts'ai Lun Society*.

It has both scholastic and social basic requirements and the first president is Ron Hamilton, a Kalamazoo resident who has been working vacations in mills in that city. He expects Uncle Sam will tap his shoulder on graduation for a service interlude.

The society is named for Chinese who made paper in the First Century A.D.



PUGET PULP—the *whitest, cleanest, bleached sulphite pulp* that we can make is produced *particularly for the market.* To assure converting mills of top quality, Puget management is always testing new processes, always alert to improved methods, always ready to install new designs in equipment. *Gear your operations to* ***PUGET PULP.***

PUGET SOUND

PULP AND TIMBER COMPANY

BELLINGHAM • WASHINGTON

NO COFFEE BREAK HERE— THEY ARE AT WORK TASTING

NO "COFFEE BREAK"—just an organoleptic panel at work in an independent research laboratory. Taste panels are necessary to determine if surface coatings, waxed papers, etc., are contributing to off-flavors or aromas in packaged products.

What Independent Labs Can Do That Others Can't

MANY SMALL MILLS, with no research departments and, in some cases, without even services of a chemist, may believe laboratory research is beyond their reach. Actually, facilities are available to them in every part of the country in independent laboratories, where there is equipment and trained manpower to take on research problems for such small mills.

And they can supplement the research activities of larger mills or companies, too. Or serve them in many special ways to their advantage.

Importance of these independent laboratories has increased as demand grows for more research in stream and air pollution, recovery and by-products, product evaluation and end-use merchandising.

Recently PULP & PAPER visited a typical research center in a typical large city to see what work was being done or could be done for the specific demands of pulp and paper manufacture and sale.

The particular laboratory visited is a commercial research, development and engineering center to carry out projects for large and small companies. It has a staff of over 100 persons, which includes chemists, engineers, physicists, assistants, medical and service personnel. Many industries are served by this laboratory. Equipment includes a high pressure autoclave, heated mills for rubber and plastics, grinding mills and ball mills for pigments, Weatherometer for accelerated aging, a large constant temperature and humidity room, pilot plant facilities for engineering, and on through much expensive equipment necessary for varied laboratory research. These facilities can determine many things from the strength of a soap bubble to the intensity of odor in an onion—and do!

Specifically, here is how a laboratory such as this could be put to work on problems of this industry:

Air and Stream Pollution: This industry is not unique as far as pollution of the atmosphere and water is concerned. Contaminants may be different from those of several other industries, but the problems are essentially the same.

In the kraft industry, electrostatic precipitators have largely removed the stack plume from recovery furnace flue gases and boiler gases. But an odor problem still remains and is being investigated both as to composition of odoriferous bodies and methods of removing them. This laboratory had a somewhat analogous case which involved the odors from concentrating sulfuric acid from a nitration process. The identity of the odorous bodies was established only in a general way, but a method for removing them was developed.

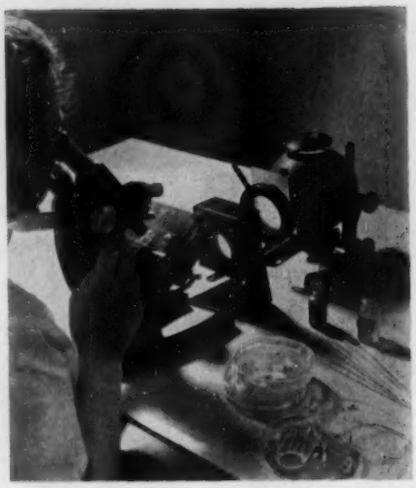
Another problem of this type involved odor from a protein hydrolysis plant. There is often a pattern to such problems which fits the experience obtained in one industry to the problems of another—which gives an advantage to a general laboratory working for both industries. The same situation may be true with stream pollution, where it would be found that there is not much difference in recovering and rinsing part of the waste water from a dye house and recovery and rinsing white water in a paper mill.

Testing Services: Not all laboratories are equipped, such as the all-purpose laboratory, for many testing procedures. In this laboratory was observed equipment for testing for color stability, aging through accelerated methods, wet strength, surface coatings, toxicity, adhesion of laminations, and many other tests.

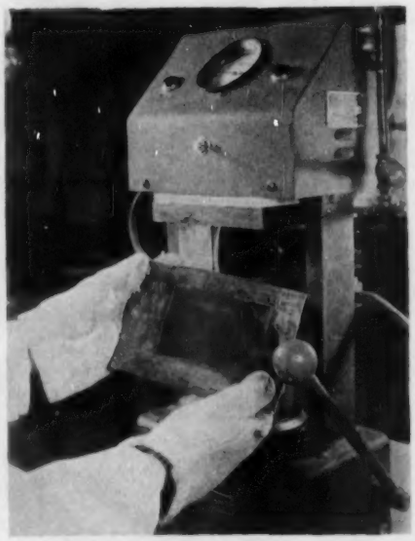
In one instance, a new type of coating was found to contribute to off-flavor of foods packaged in the paper. While this coating improved physical properties of the paper to a marked degree, the flavor deterioration of the food was considered sufficient for consumer rejection. By working with both the research department and the production department of the paper company, the off-flavor was eliminated and a coated sheet prepared which would not affect foods with odor or flavor.

In another case, a paper mill asked for

(Editor's Note: We wish to express appreciation to Foster D. Snell, Inc., New York City, for opening their laboratories and certain non-confidential files to PULP & PAPER for this story, and making their technicians available for interviews. The photographs were taken in these laboratories.)



LOOKING FOR BUGS . . . Bacteriological testing is important in slime control studies. Independent researcher doesn't usually hesitate to disclose the slime source.



ALL-PURPOSE LABORATORIES contain equipment for testing for color stability, aging through accelerated methods, adhesion of laminations, surface coatings, etc.

Meet the man you can call with confidence to solve your thermal insulation problems

To insulate outdoor tanks with complete weather protection, these skilled J-M applicators follow a specification developed by Johns-Manville. Here they are fastening J-M Asbestocite® Sheets over J-M Zerolite® Insulation. J-M 85% Magnesia Insulation is also widely used for this type of equipment

He is your J-M Insulation Contractor... the man with the world's most complete insulation engineering service

"Insulation is no better than the man who applies it." Today, with rising fuel and maintenance costs, it is especially important to place your insulation job in skilled hands. The scientific application of J-M quality insulations by J-M Insulation Contractors will assure you of the maximum return on your insulation investment for years to come. Moreover, you get undivided responsibility for *all* your insulation requirements.

1. You get dependable materials—Johns-Manville manufactures a complete line of insulations for every service temperature from minus 400F to plus 3000F. From them your J-M Insulation Contractor can select the right insulation for the most dependable service on your job. To develop new and improved insulation materials Johns-Manville maintains the J-M Research Center—largest laboratory of its kind in the world.

2. You get dependable engineering—For 95 years Johns-Manville has been accumulating insulation engineering experience. J-M Insulation Engineers are called upon to solve insulation problems of every type and magnitude, in every industry. Since your J-M Insulation Contractor works closely with J-M Insulation Engineers, he brings to *every* job a high degree of training, skill and experience.

3. You get dependable application—Johns-Manville has set up a nationwide organization of J-M Insulation Contractors to serve you. These Contractors maintain staffs of insulation engineers as well as skilled mechanics thoroughly trained in J-M's proved application methods. You can have absolute confidence in their ability to apply J-M insulations correctly for trouble-free performance.

For further information and the name of your J-M Insulation Contractor, write Johns-Manville, Box 60, New York 16, N. Y. In Canada, 199 Bay St., Toronto 1, Ont.

*Reg. U. S. Pat. Off.

Johns-Manville *FIRST IN* INSULATION

MATERIALS · ENGINEERING · APPLICATION

confirmation of its findings in development of wet strength products. This confirmation from an unbiased laboratory was used as part of the advertising program of the company.

In another instance, a waxed paperboard manufacturer asked to have his product tested for its effect on aroma and flavor of butter. By suitable organoleptic valuations, using the triangular technic, it was found that the board did not affect the aroma or flavor. By obtaining this information in advance, the manufacturer was able to proceed safely with production of his board and conversion of the cartons.

An interesting case handled by the laboratory, involving both biological and clinical tests, had to do with safety of paper stock treated with DDT intended for making garbage bags. In this case, it was necessary to demonstrate that a useful quantity of material could be applied, without risk of transfer of undesirable amounts of DDT to the skin of the person handling the bag.

Occasionally, paper products are suspected of causing skin irritation. Whether this is likely is first learned by performing tests on the shaved skin of rabbits, and then confirming the result by means of "patch" tests on human volunteers.

One mill required a control method for determining whether paper stock had been properly impregnated with wet strength resin to make it suitable for beverage cups. A modification of a standard test was developed which gave results showing excellent correlation with actual performance tests of cups made from the stock.

Product Development: This laboratory has a versatile machine for coating and treating a paper web and it has been used to work on the development of specialty papers. With the equipment, functional properties, such as wet strength, water vapor, gas or grease resistance, electrical resistance, and tear strength, among others, can be incorporated into the web for a wide variety of applications. It is felt that much work can be done here for marginal mills who may be forced into specialty fields to protect their needed margins of profit.

Slime Control: The procedure of a laboratory working on this problem is first to identify the bacteria doing the damage, then find the source, and finally suggest the remedy. While the mill chemist is close to this problem, he may not follow as assiduously as necessary the steps to make these identifications—in many cases, simply because he hasn't the time. The independent researcher is interested only in getting the answer to the problem, and doesn't hesitate to disclose its source and what should be done about it. This is an important finding for top management responsible for efficient and economic mill operation.

By-Product Development and Waste Disposal: By virtue of its association with all industries, the independent research laboratory is in a favorable position to study waste disposal problems and carry on by-product development to advantage. The large independent laboratory will have specialists familiar with waste disposal for many type of industries, with knowledge that can be applied to a specific paper and pulp mill problem. Their knowledge of the needs of other industries can aid in development of by-products for use by the other industries. For example, a technician with experience in the plastics industry, would know its needs for furfural, lignin and wood flour, and would know the economics and possibilities of utilization of pulp and paper wastes for these needs.

RABBIT LENDS AN EAR to scientific research in toxicity test. Pitch and scratch tests are used for paper products where suspected of causing skin irritation.

Product Evaluation—Market Research. The use of an independent researcher to make product evaluation and study market possibilities for developed products is important. It is an expensive process to bring a product to market. It becomes even more expensive if it turns out there is no market after all, or if the market is in a different price bracket than anticipated, or if the product won't do the job it is supposed to do or can't measure up to competition.

When a product is a development of the company's own research or product development staff, it may be more important than ever to get independent, unbiased evaluation.

Before you buy a crane:

COMPARE NET HP!

This rugged LS-85 is owned by Keyes Fibre Company of Waterville, Maine. Equipped with a grapple, it supplies the stream-barker with 100 cords per 8-hour shift.

Don't judge available power by engine model alone

...NET hp is what adds up to extra production

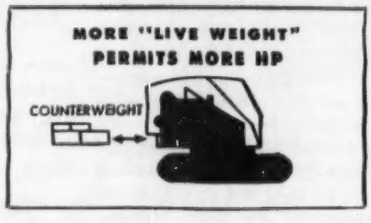
GREATER *net* horsepower helps you handle big loads quickly, *easily, safely — without stalling. For example: this heavy-*duty LS-85 with diesel engine delivers 92 net hp at full load speed. *That's more power than comparably sized competitive rigs can* safely use. That's why the LS-85 makes an ideal machine for mill-yards that need more than one powerful rig, but cannot economically use two larger cranes.

The LS-85's safe use of its extra hp is possible because of all-welded, stress-relieved construction and greater *"live-weight"*. As a result, the LS-85 offers you better year in, year out production at low maintenance costs. So whatever you do, don't compare power by the engine model alone — CHECK *NET* HP.

See your distributor or write for catalog 2317 about the LS-85. For new booklet "How to cut costs, speed pulpwood handling at the mill — in woodlands," ask for Book 2418.

LINK-BELT SPEEDER CORPORATION
Cedar Rapids, Iowa

19,394



COMPARE shovel-cranes with and without counterweight. That test spotlights the size, weight and heft built into the working parts and structural members. You'll find the LS-85 has more "live weight" than any comparable ¾-yd machine.

BUILDERS OF A COMPLETE LINE OF CRAWLER, TRUCK AND WHEEL-MOUNTED SHOVEL-CRANES

LINK-BELT SPEEDER

"Previewing" PAPER WEEK—

Chief Forester Talks—What New Woods Equipment Will Do

INDUSTRY RESPONSIBILITY in forest protection will be one of the featured topics during Paper Week on Feb. 16. Dr. R. E. McArdle, chief, U. S. Forest Service, will discuss this subject in an open industry session of the American Pulpwood Association.

"Improved Management of Company Forest Lands" is his theme, and the session will be headed by Robert W. Lyons, Kimberly-Clark vice president in charge of woodlands.

Dr. McArdle has expressed the opinion in the past few months that the opportunities for more intensive forest management practices on privately-owned forest lands are very great. He has said that three-fourths of the forest land suitable and available for growing timber crops is in private ownership, and that this land comprises most of the better, more productive forest land and the more accessible areas.

"Major dependence in attaining national goals for timber production must be placed on continuous and full production from private forest lands," he says.

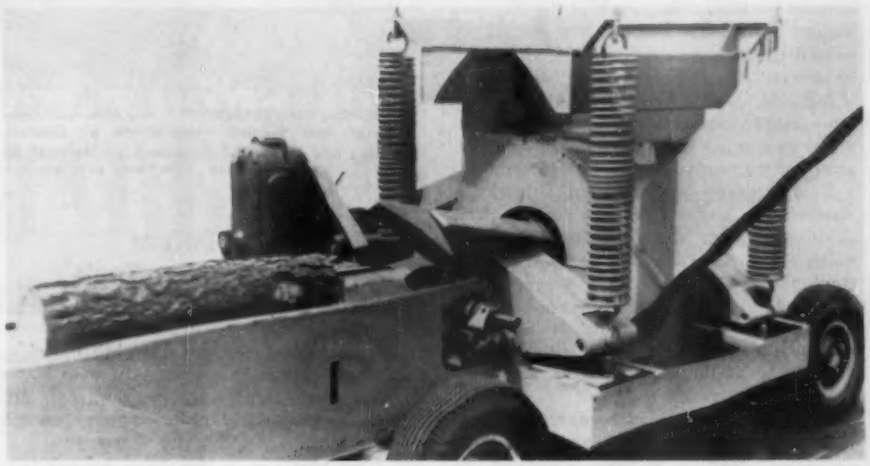
National goals to be attained also require more complete utilization of the timber crop, which means the use of improved harvesting and processing techniques to get the fullest use from each tree grown. Dr. McArdle feels that all agencies—public and private—must expand and cooperate for full effectiveness.

A point that Dr. McArdle has made is that "basic to long-range forest land management is adequate protection of forests from destruction or depletion by controlled fires and by epidemics of tree-destroying insects and diseases. The general public probably believes that all forest land in the continental U.S. receives protection from uncontrolled fires. This is true for most federal and state-owned forest lands. Unfortunately, it is not yet true for all privately-owned forest land. Some 58 million acres are still without organized protection from fire."

DR. RICHARD E. (DICK) McARDLE (left), U. S. Chief Forester, who will give his views Feb. 16 in New York at Paper Week on opportunity for more intensive good management on private forests.
ROBERT W. LYONS (right), Vice Pres. in Charge of Woodlands, Kimberly-Clark Corp., Neenah, Wis., has assignment of presiding at this star open session of American Pulpwood Association.

Other APA sessions at the Waldorf hotel, New York, Feb. 16–17, will be chairmanned by D. W. Sowers, Jr., West Virginia Pulp & Paper Co. (Technical Committees); D. E. Hess, Glatfelter Pulp Wood Co. (Improvement Opportunities in the Pulpwood Industry); W. D. Hagenstein, Industrial Forestry Assn. (Pulpwood vs. Sawlog Rotations); W. J. Damtoft, Champion Paper and Fibre Co. (Open Pulpwood Industry Session); and E. I. Demmon, Southeast Forest Experiment Station (Maximum Growth of Pulp Fiber per Acre).

Louis J. Freedman, vice president, Penobscot Chemical Fibre Co., will succeed E. O. Ehrhart, Armstrong Forests Co., as president of APA at the annual meeting of the board of directors. Mr. Ehrhart is completing his second term as president of the group.



PREVIEW OF IMPCO LOG BARKER—A "PAPER WEEK" TOPIC

IMPCO SMALL LOG BARKER now in operation for Eastern Corp., in Maine, on small logs. It is based on Sund machine developed in Sweden, and Sherbrooke Machineries has rights in Canada. A 4 or 5 ft. bolt is fed at up to 120 fpm through rotating ring on which are mounted 6 spring loaded tools which scrape off bark. Pressure by powerful springs is unique feature. Tool arms open automatically when contacted by bolt, which is firmly clamped by 3-jaw chuck as it is automatically fed into machine.

NEW SKIDDING TRACTOR AND STEEL STRAP

AMERICAN PULPWOOD ASSN. sessions at Paper Week should bring forth discussions of new "J. T. Go-Getter," a new rubber-tired skidding tractor developed by John Thibodeau, Archer, Fla. (at left), and new demand in South for steel strapping to contain wood bundles in storage until reclaimed by loaders with slings (at right). Signode Steel Strapping, of Chicago, is pioneer producer for this and other materials to make packages strong. This picture shows 1¼ x .035 strapping with anchor plate fastened and secured by crimped seal. Loose end of strap is always adjacent to wood. The tractor at left has front end oscillating axle with hydraulic cylinder. Note front wheel has dropped into hole, but traction is maintained on all four wheels.

Equipment and Handling Preview

Some of the mechanization and handling developments expected to be

featured during the APA discussions include:

Steel strapping: Steel strapping is being used at a number of railroad concentration yards throughout the South for storing pulpwood in 1¼ to 2½ cord bundles. The Southwest has favored 1¼ in. .035 strapping while the Southeast generally has used ¾ in .050 strapping. Steel strapping is purchased in roll form and cut into proper lengths by the loading crew at the concentration points. Used straps are sometimes passed through an oil bath before storing to prevent rust.

Signode Steel Strapping Co. of Chicago, who make materials and equipment to make packaging stronger, make a suitable strap for this and and machines to clamp it.

New skidding tractor: John Thibodeau, Archer, Fla., has developed a rubber-tired skidding tractor designed to operate in muck and swamp areas of the South. This tractor has relatively high speed; four-wheel drive; high clearance and is designed to handle most attachments. It has been tested in the South, and is said to perform acceptably at low cost in the small unit range.

Ross-Clark pulpwood loader: Standard Ross lift trucks have been equipped with pulpwood loading devices designed to handle a 9,000 lb. maximum load in loading rail cars, and has a hydraulic boom for loading the far-side of rack cars. The Clark pulpwood loader for yard handling in slings will take loads up to 10,000 lbs.

Impco log barker: Improved Machinery Co. now has in operation at Eastern Corp. a new type small log barker, specifically designed to handle hardwoods and softwoods as prevailing in the Northeast and the South. The new barker is similar to some Scandinavian designs, and is intended to be semi-portable in the sense that it can be moved to new concentration areas when desired.

PORTABLE AND RUBBER TIRED, the Mira mechanical barker from Sweden manufactured by Dominion Bridge and Paper Mill Equipment of Montreal has self expanding barking tools and self adjusting feed rolls.

Another New Barker Has Self-Expanding Tools

ANOTHER NEW TYPE of portable barker originally developed in Sweden is now being manufactured by Dominion Bridge Co. in Canada in cooperation with Paper Mill Equipment, Ltd., of Montreal, and will be available for the industry on this continent.

The machine is the Mira barker, designed for handling logs 2 to 12 in. in diameter and long logs. Later, a Mira capable of handling logs of larger diameter as well as 4-ft. long wood will be manufactured at Dominion Bridge's plants at Lachine, Que., and Vancouver, B.C. The unit is mounted on rubber-tired wheels.

According to manufacturers, the Mira barker is effective under varying conditions and can rapidly handle all types of logs, hardwood as well as softwood, crooked and knotty, cleaning the wood with practically no loss and little power consumption. One man feeds the machine, another takes care of barked logs.

Two motors (5 and 10 hp) operate feeding, discharging and cutting mechanisms and, if desired, the motors can be replaced by diesel engines or other convenient sources of power. In normal operation, logs can be fed at 30 to 100 fpm. The machine is automatic with self-expanding barking tools and self-adjusting feed rolls. It weighs 4 tons, is 12 ft. long, 6 ft. 3 in. wide, 6 ft. 9 in. high.

NOTABLES OF CANADIAN industry were on hand for demonstration of Mira barker. L to R are: GUS HELLSTROM, President of Paper Mill Equipment, Ltd., Montreal; W. TAYLOR-BAYLEY, Pres. of Dominion Bridge Co., of Lachine (Montreal) and Vancouver, B. C., and JOHN BATES, of Montreal, one of North America's outstanding technical authorities on woodpulp.

Lumber Mill Chips Also Go Into Rayonier Products

Wood slabs and other lumber mill leftovers formerly burned are now being shipped to Rayonier Inc.'s Hoquiam, Wash., mill from a nearby lumber company which has installed barking and chipping plant. A special 10-ton enclosed semi-truck, with capacity for 2,000 cu. ft. of chips and hoist for dumping, has big signs on its sides advertising "Chips from Lumber—All The Wood Going to Work" —"producing chemical cellulose and fine paper" at the Hoquiam mill.

NEW MACHINE QUICKLY SCALES WOOD LOAD

NEW PULPWOOD SCALE: William R. Elkins is shown demonstrating the Elkins Scalometer in the yards of Rayonier Inc., Fernandina, Fla. The scale was invented by Mr. Elkins, and is manufactured by S. C. Smith, Danville, Ill. Scale must be set 32 ft. 8½ in. from truck load which Mr. Elkins is measuring in photograph at left. In center, wood outline of truck is set on scale by adjusting knobs. At right, a closeup of the scale showing the eyepiece and the measured reading.

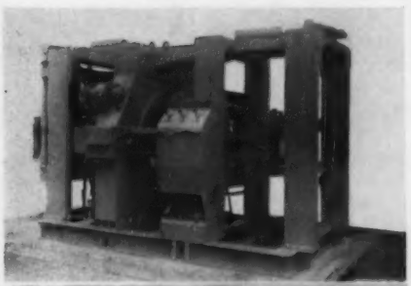
SODERHAMN

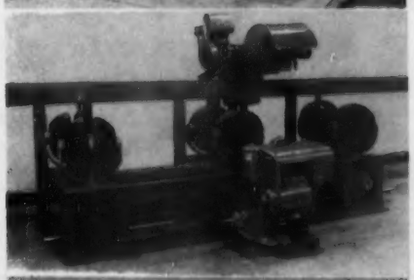
Modern and Efficient

BARKERS

Eliminate Wood Losses

Illustrated here are our three types of mechanical barkers that have been so widely and favorably publicized by leading lumber journals and paper publications. They operate at very low power cost, require only small initial investment. All barkers made in U.S.A.





ANDERSON BARKER

Pneumatic Type

(Patent Numbers 2,576,966 and 2,623,558)

Effectively and economically debarks both hardwoods and softwoods up to 120 linear feet per minute. Now in successful operation in South, Northeast, Middle West and West Coast.

SODERHAMN D-3 BARKER

(Patent pending)

This new, low cost barker is opening a new field for sawmills cutting 15,000 to 40,000 board feet, enabling them to utilize their wood waste. Now in successful operation in the Southeast and on the West Coast. This unique barker can be part of the log haul of a sawmill. Total H.P. 30. Log diameter range 5″ to 36″.

ANDERSON PORTABLE BARKER

(Patent Number 2,623,558)

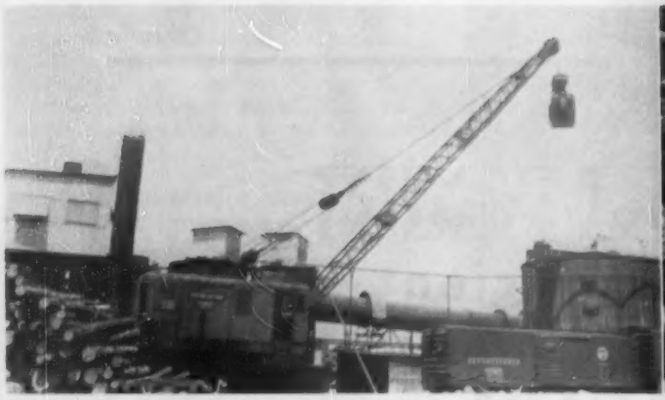
This revolutionary new portable barker, using only 15 H.P., barks softwoods and hardwoods up to 120 feet a minute. Weighs only 6,600 lbs., including in-and-out feed conveyors.

For specifications and complete information about Soderhamn wood waste recovery equipment, including Anderson Pneumatic and Portable Barkers, Carpenter Barkers, Chippers, Chip Screens, Re-Chippers, and Swedish gang mill equipment, wire, phone or write—

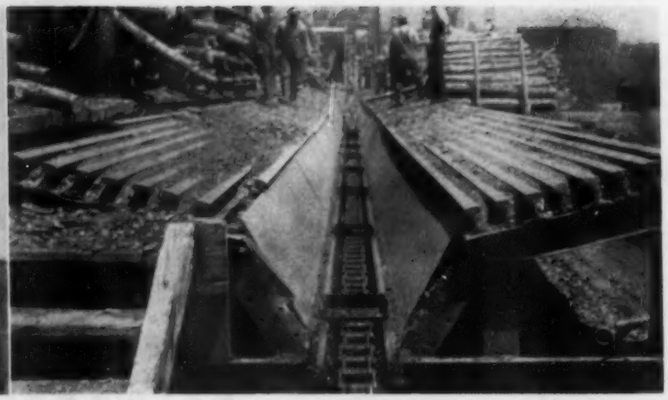
SODERHAMN MACHINE MANUFACTURING CO.

SODERHAMN, SWEDEN SINCE 1864 TALLADEGA, ALABAMA

CANADIAN REPRESENTATIVES: West Coast: Canadian Sumner Iron Works, Vancouver, B.C.; East Coast: Forano Limited, Montreal, Canada



AMERICAN HOIST & DERRICK diesel-electric crane with 70 ft. boom and ½-cord Blaw-Knox grapple unloading pulpwood at Gulf States mill, Tuscaloosa, Ala.



CHAIN BELT REX chain equipped conveyor for unloading pulpwood from truck and rail cars. Note heavy railroad iron that takes the impact of wood.

Modern Equipment and Good Management Give Gulf States High Quality Forest Stands

BROAD POLICIES and practices designed to result in fully stocked, high quality forest stands and comprehensive inventory data and management plans quickly available from records in top management's office are being effected by Gulf States Paper Corp.'s Division of Forestry.

An early user and maker of kraft paper from Southern pine, the company operates a three-machine mill and modern converting plant at Tuscaloosa, Ala. Conducting a program providing for the acquisition of timberlands since 1937, the company now owns and manages 260,000 acres in fee or surface rights, the latter being a situation arising from Alabama's richness in coal and iron deposits.

The Forestry Division, of which R. V. Miles, Jr. is manager, has its functions grouped into three departments:

Pulpwood Procurement, under E. E. ("Jack") Loper, procurement superintendent; Forest Development under John C. Kirkpatrick, forest development director; and Woodlands Management, under James W. Owens, Jr., chief forester. Operating in a staff capacity to the division manager is Frank Parham, forestry relations director, who handles relations with the rural public, 4-H and F.F.A. clubs, state forestry associations, the weekly papers and the Alabama forest industries.

Build Stock for Perpetual Supply

Practice of intensive forestry was instituted by Gulf States about 1948, but adherence to approved cutting standards began in 1942. The building up of growing-stock on company owned lands for future perpetual supply has been advanced by restricting pulpwood production to from 5 to 10 percent of the mill's 275,000 cords per year consumption. This has proven an aid to landowners in need of a market for pulpwood. Some measure of forest fire control was instituted in 1937, with an intensive program having been applied since 1942.

The company inaugurated timber growth and yield studies and started its forest inventory in 1949. The Forestry Division was set up as a major division in 1949, prior to which time a limited staff performed forestry services required by company policy, including procurement of pulpwood.

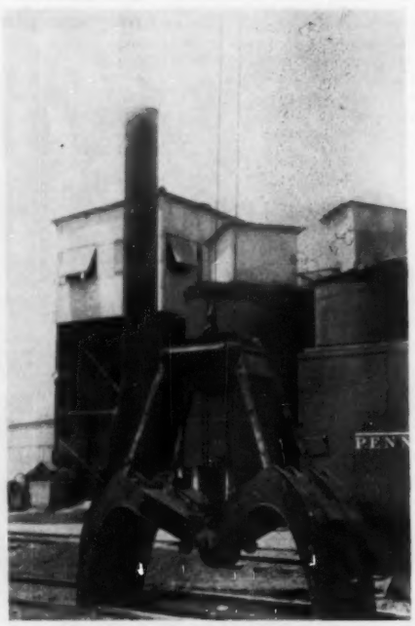
C. E. Brown, industrial forester, is in charge of the timber surveys and inventories and under his administration, staff personnel is developing the timberland inventory.

Inventory Bases Future Plans

The inventory task is one of determining essential information and measuring pertinent factors relating to the composition of the company forest. Its growth ability and the site classification in terms of acres of good tree producing land versus poor land are among the more important data collected. When this project reaches completion, a forest management plan for a ten year period will be prepared. This program provides for the rewriting of the timber management plan each ten year period. The report will define the growth rate by species and will provide for proper cutting budgets to assure sustained-yield operations. During the interim phase of the inventory, a certain amount of sanitation cut was effected, with more extensive cutting being scheduled after completion of the study.

The Woodlands Management department sells sawtimber, crossties, poles and piling in moderate amounts in accordance with existing policy statements. Pulp timber stumpage is sold to authorized pulpwood dealers. Tops from logging operations are utilized as much as possible for pulpwood.

In terms of the South, Alabama is an old state, its productive soil and abundance of game having attracted many settlers from the earliest days. Wildlife management therefore is a definite phase of company forest activity. In recent years or-



CLOSE-UP of Blaw-Knox grapple used with American Hoist crane, picking up half a cord of wood in one lift.

ganized deer hunts for company employes and guests have been conducted on the company's 8000 acre Westervelt Game Preserve. As many as 85 hunters participate in a single event. Local residents may obtain a permit to hunt upon application. Under Alabama law, a hunter or fisherman must have a written permission from the landowner. Where turkeys are plentiful in the longleaf, deer abound in the bottoms. The game population has been steadily increasing.

Chemicals Control Low-grade Woods

Chemical control of low-grade hardwoods has proven successful on company holdings. Longleaf and loblolly seedlings

Get them into the open fast!

Oliver "OC-3" with winch and front-end loader skidding logs.

The maneuverability of the Oliver Industrial "OC-3" crawler is amazing in tight spots. In fact, its unusually high clearance, power (21.85 drawbar h.p.) and controlled differential steering, enable you to work in mud, over stumps, ruts...places an ordinary tractor would be useless.

The long track life, simple design and durable construction of the "OC-3" keep you working longer, producing more. Lower track wheels are lubricated and sealed against damaging dirt and water ...insuring long, trouble-free service and low maintenance. Outfitted with bulldozer or loader, the "OC-3" becomes a useful tool for clearing, backfilling, loading loose material and performing many other profitable tasks.

Try the "OC-3" on your work, under your own conditions. Your Oliver Industrial Distributor will be glad to show you what a real performer the "OC-3" really is. Call him today for a trial run!

THE OLIVER CORPORATION

400 West Madison Street, Chicago 6, Illinois

a complete line of industrial wheel and crawler tractors

are under planted on poorer soils where scrub oak prevails, and then the oak overstory is treated with chemicals or by girdling with axes and power saws to reduce shade and root competition. Most hardwoods are readily affected by the chemicals; hickory is one that is resistant.

Pulpwood operations are rapidly becoming modernized, with the advent of the small power saw and the Swedish bowsaws. Modern trucks of 2 to 4 tons capacity are used for pulpwood transportation. If terrain permits, the truck goes through the woods to pick up the pulpwood. If too rough, power or animal logging is used to bunch tree lengths where they can be bucked and loaded on trucks. The mill uses both 5 and 6 ft. length pulpwood.

Pulpwood is received at the mill from truck and rail cars with unloading performed by two American Hoist and Derrick diesel-electric cranes with 70-ft. boom and ½-cord Blaw Knox grapples. Cable slings are substituted for the grapples when the cranes are unloading pulpwood from trucks. The pulpwood conveyor is heavily built on concrete foundations with heavy railroad rails to take the shock of the pulpwood and a heavy duty Chain Belt Co.'s Rex-A-102 conveyor chain to move it to the barking drum.

DIRECTING GULF STATES FORESTRY

JACK W. WARNER,
Executive Vice President

J. C. KIRKPATRICK (left) is Forest Development Director; R. V. MILES, JR. (right) is Forestry Division Manager.

(L to r): ROY L. RIFFE, Forest Improvement Assistant; J. W. OWENS, Chief Forester; E. E. ("Jack") LOPER, Pulpwood Procurement Superintendent.

GULF STATES' excellently planned Forestry field headquarters (at left) where field equipment is repaired and maintained. Forest improvement assistant's residence in background. View at right is of company-maintained road, on which an Adams leaning wheel grader is used with a Caterpillar D-4.

AFTER THREE YEARS' growth, an old field machine-planted by Gulf States to pine seedlings looks like this (left). At right are seen some excellent results from the use of DuPont's ammate. Note dead upper story and thriving young pines. Area was treated two years previously.

Field Headquarters in Mining Camp

Forest lands under management are divided into three administrative districts with a district forester in charge of each. Central field headquarters were set up in an old mining camp, the company having acquired the land when the underground mining operations were concluded. The mining superintendent's house is now occupied by the forest improvement assistant, whose principal duties are to develop and maintain the forest road system and to supervise the "shot-gun" fire crew. The company has erected two buildings about 80 by 32 ft. to house equipment, a 16 by 20 ft. blacksmith shop and a general use building 12 by 18 ft. Equipment kept here includes: a Ford tractor equipped with "half-tracks," a Cieco fire plow, a pick-up truck, a Caterpillar D-4 tractor, bulldozer, an Adams leaning wheel grader, two transport trucks to haul the tractors, and four tree planting machines.

Reinforced concrete land corners with bronze caps, used in forest boundary surveys, are made at the central field headquarters.

Reforestation is carried out, particularly in abandoned agricultural fields, where modern mechanical tree planters bring the land quickly into forest production.

International Harvester To Make Heil Tractors

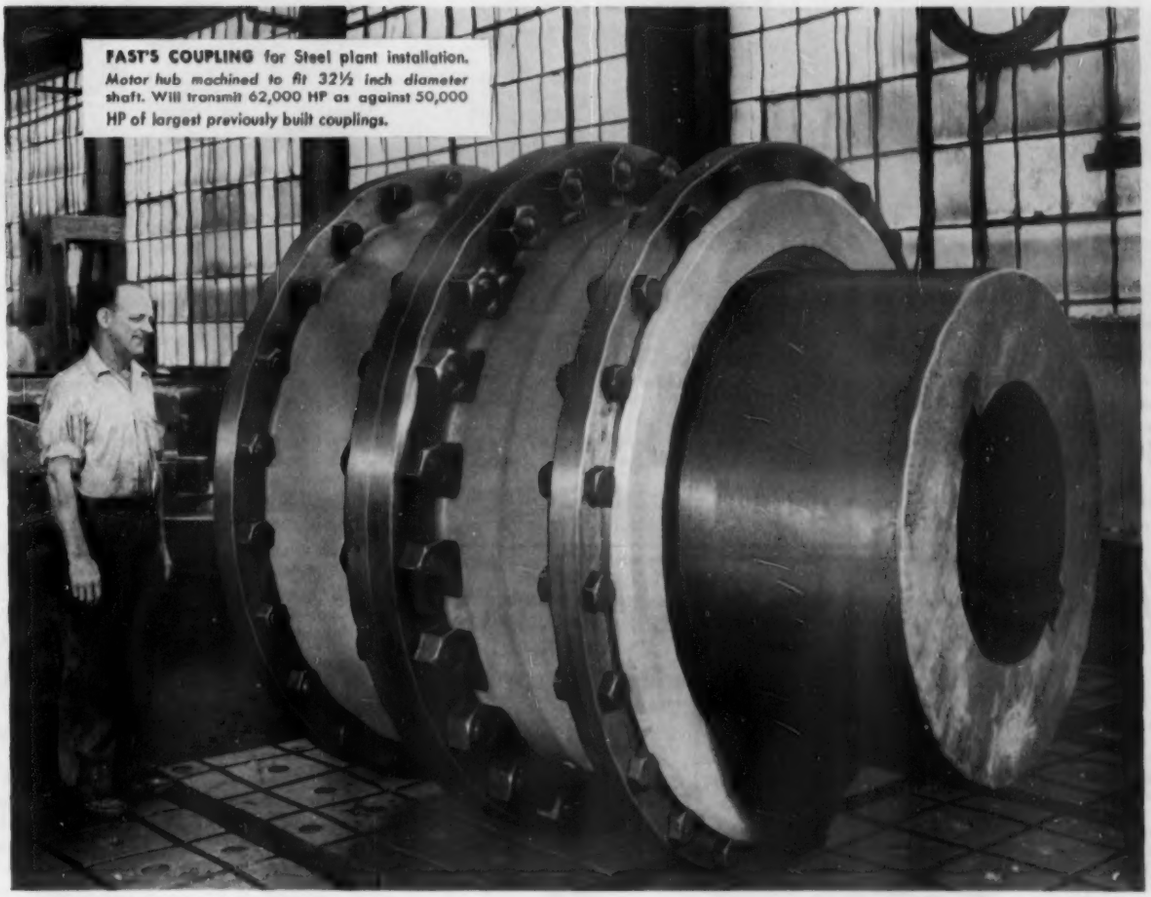
International Harvester Co., continuing its program to round out a full line of equipment in the industrial power and earth-moving industry, announced an agreement with Heil Co., Milwaukee, enabling Harvester to manufacture two-wheel rubber-tired industrial tractors for heavy construction work. The announcement was made by Joseph F. Heil, president of Heil Co., and Harald T. Reishus, vice president, International Harvester, and head of its industrial power division.

Harvester acquires Heil patents and designs covering two-wheel tractors. Heil will supply Harvester with two-wheel tractors until Harvester begins their manufacture of tractors.

$1,000 Fellowship Open

The department of paper technology at Western Michigan College is accepting applications for a $1,000 fellowship for 1954-5, according to Dr. A. H. Nadelman, head of the department. The fellowship was established by D. J. Murray Mfg. Co., Wausau, Wis. in recognition of Roy H. Kelly, of Rothschild, Wis., past president of the Superintendents Assn.

HAROLD S. FOLEY, president of Powell River Co., has been elected a director of the Bank of Montreal.



FAST'S COUPLING for Steel plant installation. *Motor hub machined to fit 32½ inch diameter* shaft. Will transmit 62,000 HP as against 50,000 HP of largest previously built couplings.

WORLD'S LARGEST INDUSTRIAL GEAR-TYPE COUPLING

To make a coupling that will transmit 62,000 HP and compensate for errors in alignment . . . that's more than a man-sized job.

But Koppers took on the project and this Fast's Self-Aligning Coupling is the result.

After six months of machining and assembly, this huge, *all metal* coupling is on its way to installation in a Milano, Italy, steel mill where it will carry power to a Mesta, 110-inch, four-high reversing plate mill.

It will transmit power from an electric motor to the equipment, and, at the same time, compensate for shaft misalignment and lateral float, give maximum power transmission efficiency, eliminate breakdowns and costly down-time.

WHAT'S YOUR COUPLING PROBLEM?

This mammoth Fast's Coupling is just one example of the outstanding jobs which Koppers is equipped to handle. 35 years of manufacturing "know-how" go into the production of *all* Fast's Couplings, large and small alike. Engineering specialists, experienced in designing Fast's Couplings for special applications, are well equipped to solve your coupling problems.

Remember, there's a Fast's Coupling for every power transmission application. Next time you have a coupling problem, call on Koppers . . . always ready to serve you. No obligation, of course. Also, for full details on Fast's Couplings for industry, mail this coupon.

THE ORIGINAL *FAST'S Couplings*

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METAL PRODUCTS DIVISION • KOPPERS COMPANY, INC. • BALTIMORE, MD. This Koppers Division also supplies industry with American Hammered Industrial Piston and Sealing Rings, Koppers Electrostatic Precipitators, Aeromaster Fans and Gas Apparatus. *Engineered Products Sold with Service*

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Gentlemen: Send me FREE, Fast's Catalog giving detailed descriptions, engineering drawings, capacity tables and photographs.

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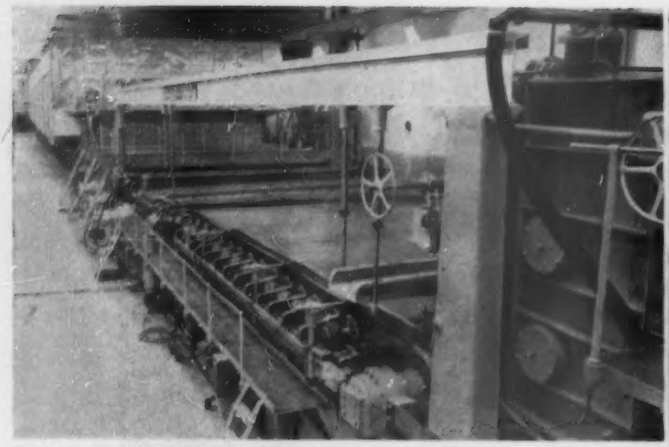
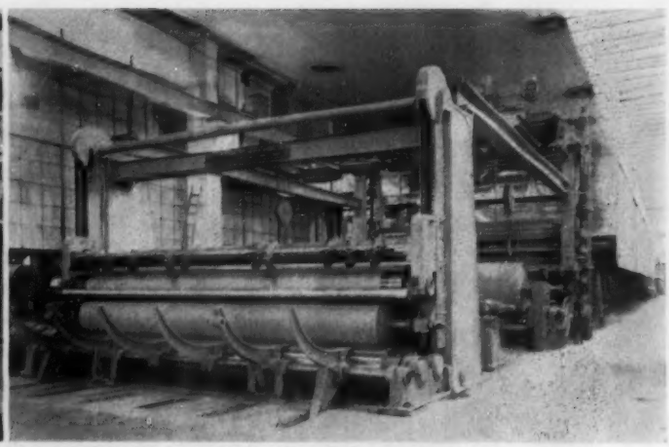


AT GRUVEN MILL OF BILLERUD CO., in Western Sweden, this 207 in. machine's wire has speed range of 230 to 1,150 fpm.



DRY END OF SWEDISH kraft machine has 40 paper dryers and a Flakt air system. This completed $7,000,000 expansion.

Big Machines Start Up in Sweden and Norway

TWO OF THE LARGEST Fourdrinier paper machines in Europe started up in late 1953 in Sweden and Norway. The biggest kraft machine in Sweden, 207 inches trim, is making bag paper at the Gruvön mill of Billerud Co. in western Sweden, and the largest machine installed in Norway since the war—a 170 in. trim machine—is making kraft paper at Moss mill of M. Peterson & Son in Norway. One of the largest kraft machines in all Europe, the Gruvön addition will roll out 30,000 tons a year, increasing total annual output of that mill to 65,000 tons.

This makes the Billerud Co., which has central mills and head office at Saffle, Sweden's largest producer of kraft paper.

The new machine is chiefly intended for the production of unglazed kraft bag paper, which Billerud exports to bag factories all over the world. Length of the machine is 330 ft., height is 30 ft., and the trim width is 17 ft. 3 in. Outer dimensions are comparable to those of a ship of over 7,000 tons.

Built by the Swedish Karlstad Works, the machine is driven by eleven DC motors, one for each section, supplied by the Swedish ASEA Works, in Vasteras. Section speed can be regulated jointly or separately at a range from 230 to 1,150 fpm, and machine design permits further increase to 1,475. Drying sections consist of 40 paper and 10 felt dryers. All operations are performed by means of push buttons on a central panel.

An extensive heat regenerating plant was supplied by Svenska Flaktfabriken. From moisture evaporated from the machine, it recovers an amount of heat corresponding to 1,500 tons of coal a year.

A $7,000,000 expansion program inaugurated at the Gruvön plant in 1944 now has been completed. Number of machines has been doubled and now totals four. Pulp mill and auxiliary plants have been enlarged.

Walmsleys of Britain made the Fourdrinier machine for the Moss mill in Norway. It makes unglazed sack paper and kraft liner at the rate of 20,000 tons annually. It runs at 88 fpm. But its 35 dryers can be increased to 49, with speedup to 1,200 fpm and output would be boosted to 30,000 tons.

WOOD is the ONLY renewable raw material source.

Personals

MIDDLE WEST

"Cal" Rounds Out 25 Years; Kindig is a City Official

OLIN CALLIGHAN, roving ambassador for Edgar Brothers and its technical sales director, has rounded out 25 eventful years with the New Jersey clay firm. His home is in Kalamazoo.

HARRISON KINDIG, personnel manager of MacSimBar Co. of Otsego, Mich., and slated to be next chairman of the Michigan Superintendents, is a city commissioner of Otsego.

DON KNIGHT, a New Englander with Bulkley, Dunton Pulp in Kalamazoo, covering the Midwest for seven years as *MILT BAILEY's* assistant, recently made his first visit to the Pacific Northwest and toured new mills there.

FRANK B. EILERS, of Kalamazoo, representative of Eastwood-Nealley wires and Orr felts, and his wife, Helen, are great grand-parents again. *FRANK EILERS FIELD,* of Sutherland Paper and his wife welcomed a baby boy, Steven, to the family. They also have a girl, Kathy.

W. W. TOLLEY, assistant manager of purchases, Nekoosa-Edwards, and Mrs. Tolley have a new son, David Wooster Tolley.

ED C. HILFERT, president of Riverside Paper Corp., has been elected president of the Appleton, Wis., vocational school board.

GLENN M. STEWART, advertising manager for Kalamazoo Vegetable Parchment, and *BOB HUSTON,* ex-KVP and now v.p. of Fuller Mfg., were named to a Rotary Club committee to assist Michigan State College with new industrial supervision courses.

NEIL K. PLANTEFABER, former purchasing agent at Rocky River Paper Mills, Three Rivers, Mich., and graduate of Kalamazoo College and Harvard Business, is new sales engineer for R. T. Vanderbilt.

The *ALBERT C. GILBERT* estate, valued at $595,000, was distributed and the late Gilbert Paper Co. president's widow, his son, *NICHOLAS T. GILBERT,* and four daughters were among heirs. *MATT MINTEN,* a Gilbert employe, received $1,100.

CHARL DEWET, for 31 years in research and development for Kimberly-Clark, was honored at a dinner on retirement. *KENNETH CRAIG,* chief of the K-C pulp, paper and newsprint lab, presented a gift, *JAMES MURPHY,* administrative director of research and development, spoke, and *GEORGE RUSHTON,* personnel representative for the lab, was in charge.

JAMES BOYD, president of The Manchester Machine Co., Middletown, O., announced promotion of *HUBER NEWCOMB* to supervisor of planning and scheduling.

GARDNER H. CHIDESTER, pulp and paper chief at the U.S. Laboratory, Madison, Wis., was honored as "Papermaker of the Month" in Noble & Wood's *Agitator.* He was born in Hastings, Mich., graduated from Michigan in 1920, was with Kimberly Clark in sulfite, and helped to start up with Spruce Falls mills before joining the Madison lab in 1925.

RUFUS ROBINSON, 69, years ago machine room supt. and finishing supt. (when it was Hoberg Mills) and recently storekeeper for Charmin Paper Mills, has retired.

ASA RICE, 57, tour supervisor of Mill 2 paper machines for KVP, died of injuries suffered in an accident.

GLENN FAST, former shipping controller at KVP, is now traffic manager at its subsidiary Harvey Paper Products Co., Sturgis, Mich.

THE SOUTH

Atlanta Financier on Board; Romance in Carolina Project

JOHN A. SIBLEY, Atlanta, chairman of Trust Co. of Georgia, a director of Coca-Cola, Continental Gin, Equitable Life and Chattanooga & St. Louis R.R., has been elected to the Rayonier board, succeeding *WILLIAM TUDOR GARDINER,* killed in an air crash. On his own farmlands, he is restoring timber growth, and is sponsor of a program to aid farmers buying heavy equipment.

RHODA McCLURE, of the Champion Paper & Fibre Co., Canton, N.C., was married recently to *RAYMOND JOSEPH LEMIRE,* of Worcester, Mass., engineer who represented Riley Stoker Corp., in connection with installations at the Carolina mill. She returned to her position in the mill office but planned to join him, later, on an assignment that took him to British Colony of Aden.

J. W. (BILL) JOHNSON, woodlands research supt., and *R. V. MALECKI,* forestry technical control supt., Union Bag &

HIT OF THE SHOW! A miniature paper machine built by Rice Barton in 1933 and borrowed from Franklin Institute for display in 1953 Worcester, Mass., Industrial Exposition, was inspiration for this newspaper cartoon. 65,000 saw machine make paper during the Exposition at its designed speed of 8 fpm.

SWIFT'S *New Process* GLUE

FOR HIGH RETENTION OF TITANIUM DIOXIDE AND CLAY

• This is New Process glue . . . greatly magnified . . . as it leaves the drier before being ground and screened to uniform particle size. Its unusual crystalline honeycomb structure quickly absorbs water and promotes unusually high retention of fiber and filler on the wire. Brightness and opacity are improved because of its ability to retain greater amounts of titanium dioxide and clay in the sheet.

Because it is produced by an entirely new process, this *colloidally active* water soluble animal protein is light in color and free of contaminating substances. Its exceptional flocculating ability helps produce a denser, smoother and more uniform sheet—and aids in the production of denser, brighter pigmentation of colored stocks.

Its performance is economical too . . . it is used at low concentrations . . . its high retention of valuable pigments in the sheet usually more than offsets the cost of the glue.

Find out more about Swift's *New Process* Glue for titanium dioxide and clay retention. If you use a flotation type saveall, this colloidally active protein can secure and maintain high recovery in your system. An informative bulletin, outlining formulas, equipment and instructions for these uses is available to you without obligation.

Write for details and remember . . .

DON'T OVERLOOK THESE OTHER IMPORTANT USES FOR NEW PROCESS GLUE

- For creping of facial and toilet tissues and paper napkins
- For use in flotation type saveall systems
- For machine coating

ONE TRIAL IS BETTER THAN A THOUSAND CLAIMS

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Please send your latest bulletin on Swift's New Process Glue.

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Personals

Paper Corp., made a three weeks tour of West Coast logging, a direct result of contacts made by *GUNNAR NICHOLSON*, executive v.p. of Union Bag, when he took part in the APPA's western tour last fall.

We regret we erroneously reported in January that *WILLIAM B. JENKINS* had become superintendent at Southland. He was promoted from assistant superintendent to paper mill superintendent at Crossett Paper Mills, Crossett, Ark., and *A. B. MORRE* became assistant to the general manager at Crossett.

NORTHEAST

Huyssoon Promoted in Continental; Meehan Asst. Mgr. at Carthage

ARNOLD B. HUYSSOON has been appointed senior vice president and general manager of the paperboard division of Continental Paper Co., Ridgefield Park, N.J., combining sales and manufacturing under one executive. In World War II he was WPB paperboard division director.

TOM MEEHAN has been appointed assistant resident manager of the Carthage, N.Y., mill of Crown Zellerbach. He had been supervisor of paper machines and beaters maintenance at the Camas mill.

CHARLES GUISCHARD, graduate of Hofstra College, is J. O. Ross Engineering Corp., representative for mills in Pennsylvania, working out of New York City.

DOUGLAS B. NEWCOMB has been appointed sales engineer in the Northeast for Orton Corp., Fitchburg, Mass., according to *SAM T. ORTON JR.*, president. Orton represents Brandon dryer felts, Evans Rotabelt, Moore & White, Morden Machines, Souhegan Mills and Tidland Machine Co. Mr. Newcomb was with Crocker, Burbank mills for 17 years, the last six as plant engineer.

SITTING IN ON SLIME SEMINAR

BUCKMAN LABORATORIES INC., of Memphis, brought their representatives together recently to discuss slime control progress and new products to combat microorganisms. Some of those attending:

ABOVE (l to r): WILLIAM D. STITT, Vice Pres. and Sales Mgr.; L. B. GREINER, of Benio Chemicals, Rep. in Lake States; DR. S. J. BUCKMAN, Pres. and Gen. Mgr.; ARMANDO ULLED, Rep. in Argentina; and HUGH GARDNER, Portland, Ore., Rep. for Pac. Coast.

BELOW (l to r): CHAS. P. KIRCHEN, Southern Sales Mgr.; CHAS. BASSEMIR, Philadelphia, Mid-Atlantic Rep.; R. C. QUICK, Eastern Chemicals, Albany, Rep. in N.Y.; J. D. PERA, Chief Chemist.

George Ehemann, Who Gave Montreal Paper, Dies Suddenly

George C. Ehemann, plant engineer at Ohio Boxboard Co., Rittman, O., died suddenly of a heart attack on Dec. 23. It occurred less than two months after Mr. Ehemann had appeared before the Montreal Engineering Conference, where he gave a paper on paper tension regulators with R. C. Berger of General Electric, and had met many of his associates in the industry.

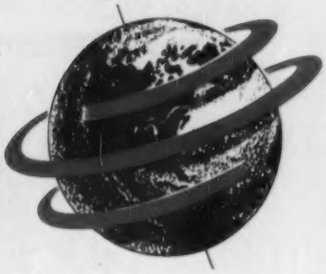
J. C. Morris, vice president of Ohio Boxboard, announces that E. L. Stentz, who had been assistant plant engineer, succeeds Mr. Ehemann as plant engineer.

"STARS" ASCEND IN THE SOUTH

J. BORDEN JEFFREY (left), who has been promoted to Paper Mill Supt. for Coosa River Newsprint Co., Coosa Pines, Ala., succeeding Jay Crittenden, whose acceptance of similar post at new Bowaters Southern mill was previously reported. Mr. Jeffrey was Asst. at Coosa since 1949 and has 35 years in newsprint, 21 at Spruce Falls, Kapuskasing, Ont., and he started at Spanish River, Ont.

RICHARD (DICK) SCHOLL (right), named to new post of Coordinator of Pulp and By-Products Production, The Champion Paper & Fibre Co., moves to Hamilton, O., headquarters and will supervise staff on production and quality programs at North Carolina and Texas pulp mills, serving under Lee Geiser, Director of Production. Mr. Scholl was born in Kentucky, graduated from Michigan and has been Gen. Supt. of Canton, N.C., Pulp Mill.

Over 750 Installations in 22 Countries Throughout the World



Morden-ize

THE 3 BASIC TREATMENTS IN YOUR STOCK PREPARATION

EACH STOCK requires one or more of these basic treatments.

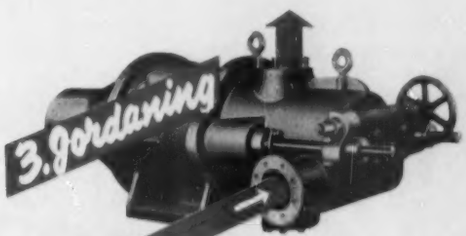
EACH MORDEN MACHINE is engineered, standardized and proven in one of these basic treatments.

EACH MILL'S requirements suggest various applications.

OUR EXPERIENCE in assisting mills to develop simple, effective and economical stock preparation systems is available to you upon request.

MORDEN SLUSH MAKER®

...for completely defibering all pulps, papers and brokes (even wet strength) without auxiliary equipment.



MORDEN STUFF MAKER

...for cutting or shortening where required to obtain specific sheet properties.

MORDEN STOCK MAKER®

...for brushing, fibrillating and hydrating individual fibers for maximum strength development.

Northeastern States Representatives:
ORTON CORPORATION, Fitchburg, Massachusetts

Midwestern States Representatives:
DAN B. CHAPMAN, Appleton, Wisconsin

Other Representatives in most paper-making countries.

MORDEN
STOCK PREPARATION EQUIPMENT
MACHINES COMPANY

CORBETT BUILDING PORTLAND, OREGON

Personals

JOHANNES WESTERGAARD, vice president of Castle and Overton, Inc., has been elected president of the Association of American Wood Pulp Importers. Other officers elected in the annual meeting of the group at New York's Waldorf include: *DR. ALLAN C. HILL*, Montmorency Paper Co., vice president; *V. RAMSEY*, Pulp Sales Corp., treasurer; and *PER WESTAD*, Borregaard Co., secretary.

MISS IRENE DENNERY has been appointed advertising and sales promotion manager, Nopco Chemical Co., Harrison, N.J.

KENNETH H. KLIPSTEIN has been appointed general manager of the newly-created Research Division of American Cyanamid Co. in a sweeping change of managerial organization. *L. C. DUNCAN* has been named general manager of the Organic Chemicals Division of the company which is a consolidation of Petrochemicals and Calco divisions; *A. B. CLOW* heads Fine Chemicals Division; and *J. ALLEGAERT* the new Pigments Division.

HARRY C. MERRITT is newly-appointed executive vice president of Downington Mfg. Co.; *JACK C. HARPER*, chief engineer; and *EMERSON N. GLAUNER, SR., RICHARD W. POLLEYS* and *JACOB V. EDGE* have been appointed assistant sales managers.

L. G. DURANT, vice president, Pandia Inc., New York City, and *RONALD G. GOODWIN*, director of sales engineering, have taken off for widely-separated parts of the world. Mr. Durant will visit Japan, while Mr. Goodwin will be visiting mills in Finland, Sweden, Norway, Belgium, France, Germany and Great Britian.

ROBERT J. COLVIN, representative for Oakite Products, Inc. in the Northeast, has been honored by the 1953 D. C. Ball Award, given in memory of the firm's founder.

ROBERT S. HARRIS moves to the presidency of Fort Orange Paper Co., Castleton, N.Y., from his previous post as senior vice president.

SERVING PACIFIC COAST INDUSTRY

NAMED REPRESENTATIVES for equipment and engineering firms on West Coast (l to r):
HUGH L. BOLGER, based in San Francisco, is Sales Rep for entire Coast for Cameron Machine Co., mfrs. of winders and slitters. With the now disbanded Pacific Coast Supply Co. for 13 years, which represented Cameron, he carries on in familiar work. Previously he had been with a felt company and Crown Zellerbach.
ROBERT S. SHRADER, offices at 4003 Aurora Ave., Seattle, is named Factory Rep for Yarnall-Waring Co., Yarway digester valves and steam plant equipment, in Washington, Oregon and North Idaho. Graduate of Bucknell, he had been in paper industry development work and was a DuPont sales engineer.
CHARLES B. COLE, named Manager of new office in Dexter Horton Bldg. for Heat & Control Inc., industrial process heating engineers. Had been in aircraft industry in Los Angeles, graduated from Arizona and took master's at MIT.

PACIFIC COAST

Mike McPhee joins McPhees; Nog Galteland in Canaries

DON McPHEE, office manager for both sulfite and sulfate mills for Weyerhaeuser in Everett, Wash., and assistant to Manager Russ LeRoux, and Mrs. McPhee have adopted a baby boy, Mike McPhee. Don has been with Weyerhaeuser 18 years, starting with *RUSTY INKSTER* in purchasing.

N. O. (NOG) GALTELAND, former instrument engineer with St. Regis in Tacoma, and former owner of an instrument laboratory in Tacoma, writes from Hamilton & Co., Santa Cruz, Tenerife, Canary Islands, that he arrived there by boat from Norway. He was recovering from a broken leg suffered in a "collision" with a motorcyclist in Oslo. "Nog" recently was with air force construction work in Africa.

MAX W. BROWER has been promoted from senior engineer, Crown Z's Port Townsend mill, to maintenance supervisor for paper machines and beaters at Camas, Wash., his third advancement since joining Crown in 1948. His transfer was announced by *LEO ZIEL*, Townsend division manager. Mr. Brower was born in Chehalis and graduated from U. of Washington. He is a Kiwanian and Toastmasters member, and he and his wife, Miriam, have two sons.

LEROY McTEE, former electrical foreman, is chief electrician for the Weyerhaeuser Pulp Div., Longview, Wash., and *JOHN HOLMQUIST* is assistant.

Personals

BEN SPAULDING, Coast rep. for Emerson Mfg. div. of John W. Bolton, aroused a lot of interest at a recent Coast meeting by announcing the Bolton future essay contest open to all mill employes.

ART COFFIN, of Evanston, Ill., representative of Titanium Pigment, recently visited Coast mills.

JOHN H. DUFFIE, 47, Menlo Park, Calif., representative in Northern California for Everett Pulp and Paper Co., division of Simpson Logging, died suddenly in his San Francisco office Dec. 9. He was formerly with Western Paper Converting.

PORTER T. DICKIE, commander of a Naval Reserve training station in Salt Lake for past couple years, returned to Crown Z, West Linn, Ore., as technical assistant in the coated paper department. He fills a vacancy resulting from transfer of *CHARLES E. YOUNG* to Western Gummed & Coated Products Division, Portland, as assistant superintendent.

C. V. McDONALD, assistant office manager, West Linn, joined the Camas plant as assistant office manager. *RAY WALKER*, assistant office manager, Port Angeles, replaced Mr. McDonald at West Linn.

GEORGE KNOTT, kraft pulp mill shift foreman, Camas, with Crown since 1919, died Dec. 24. *MANLY GREER* was promoted to the vacated foremanship.

JAMES M. BURCH, groundwood foreman, has been promoted to groundwood mill superintendent at Crown Z, Camas, succeeding *FRED SIEVERS* who retired Dec. 1.

COVER COUNTRY FOR LOCKPORT

RICHARD S. BUCKLEY (left), now a resident of Newfane, N.Y., is Technical Service Representative for Lockport and will travel all over U.S. E. PAUL EASTON (right) covers the South for sales tthe Southeast is still George Hardaker's territory); he formerly headed sales for Sveen-Peterson Corp. Mr. Buckley, Washington State graduate, was with Weyerhaeuser and Fernstrom mills on the Pacific Coast, having been Supt. at Fernstrom, Pomona, Calif. (now Potlatch).

JACK D. CUMMINGS, former general superintendent—converting and yard, CZ, West Linn, has become assistant operating manager of CZ-Converting, Los Angeles.

ARTHUR J. HAUSCHILD, plant superintendent of Western Waxed Div., Crown Z, Los Angeles, has been named superintendent of the San Leandro plant, replacing *VON D. HUNTER* who resigned to become consulting engineer of Margison, Babcock & Associates, Ltd., Toronto, Ont. *CLAYTON K. HAYES*, senior sales representative, replaced Mr. Hauschild.

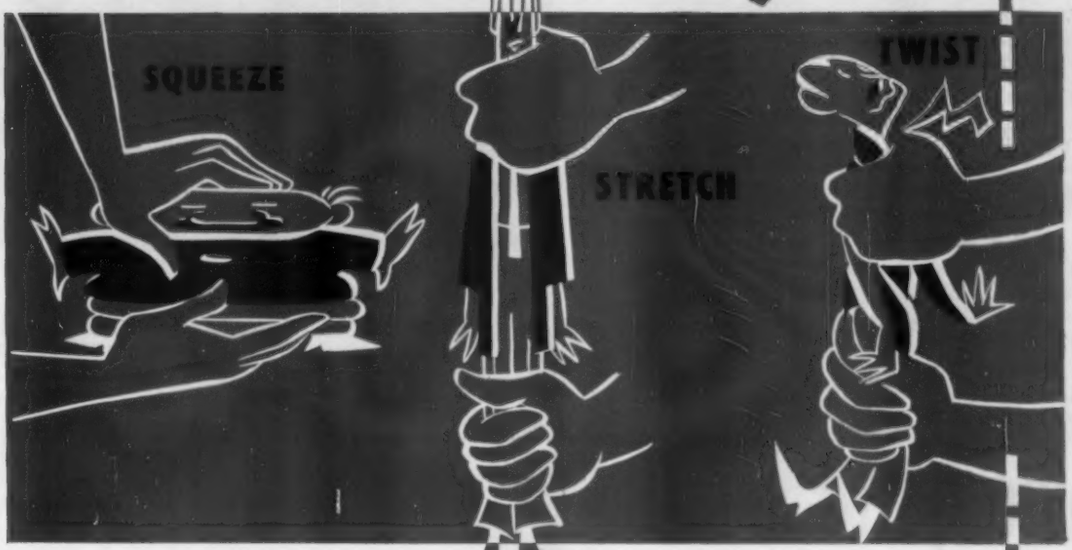
CHARLES L. CRAIG, formerly with Pabco Products, Inc., Oakland, Calif., has joined mechanical development engineering department of Crown Z, Portland, Ore., as senior mechanical development engineer, succeeding *OLIVER F. CHAPLIN*, promoted to chief mechanical development engineer.

PACIFIC COAST MEN RECEIVE HONORS

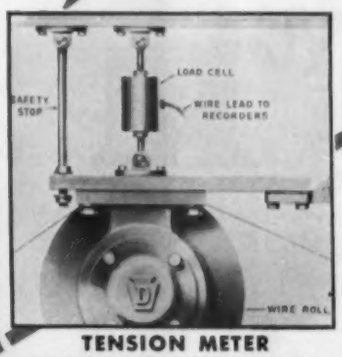
PAUL E. ROBERTS (left), Vice Pres. and Gen. Mgr. of Alaska Pine & Cellulose Ltd., Vancouver, B. C., has been elected Chairman of Western Division of Canadian Pulp & Paper Assn. He was former Mgr. of New Developments for Abitibi before going west when they acquired pulp interests with Alaska Pine.

PHILIP F. PAUL (right), who has been guiding expansion of Pioneer Div., The Flintkote Co., in Los Angeles and at San Leandro, Calif., has been appointed Administrative Manager of its Paperboard Division, according to George J. Pecaro, Vice Pres. and Gen. Mgr. of Flintkote. Mr. Paul had been Mgr. of the Container Division since 1945 and served in World War II as WPB Paperboard Division Asst. Director.

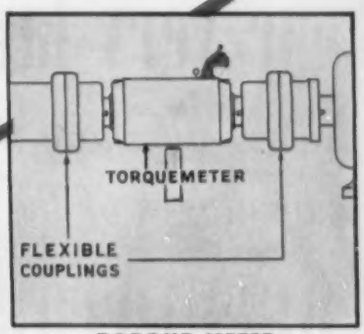
How You Can Measure ?



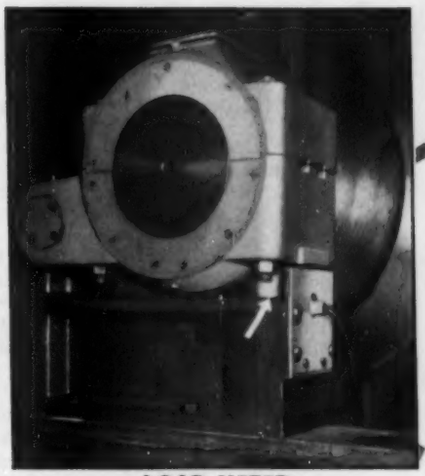
instantly,
accurately,
economically



TENSION METER
Installed on a wire roll of a Fourdrinier Machine.



TORQUE METER
Installed between a drive unit and any driven roll.



LOAD METER
Installed on the press roll of a hardboard machine.

The accurate and instant measurement of forces exerted in the production of fine papers is of utmost importance for these reasons:

1. To insure precise and uniform nip pressures between rolls
2. To prevent abnormal strain on wires, felts or paper webs
3. To measure unusual HP demands

Because these and other measurements of stresses can be recorded with the Downingtown Load, Tension and Torque Meters, compensating machine adjustments can be made at once.

Let Downingtown show you how economical it is to install these devices at various points on your machines.

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West Coast Representative:
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DOWNINGTOWN
DESIGNERS AND BUILDERS OF PAPER, BOARD AND FELT MACHINES SINCE 1880
MODERNIZATION IS PROFITABLE

CANADA

Ralph Hayes Moves to Toronto; Promotions at Powell River

A. S. MACDONALD, control superintendent at Consolidated Paper's Laurentide mill, has been transferred to Three Rivers, where he will work on research and development at Wayagamack and other divisions under *HORACE FREEMAN*, technical director for the company.

RALPH HAYES, former manager of the Pine Falls, Man., mill of Manitoa bPaper Co., has been promoted to assistant production manager of Abitibi Power & Paper, parent company, in Toronto where he will aid *R. J. ASKIN*, v.p., manufacturing.

GEORGE T. DONOHUE, of Quebac, president of Donohue Bros., has been made honorary colonel of the famed Chaudiere French-Canadian Regiment.

E. (TED) PESTRIDGE has retired as groundwood mill shift foreman, and with introduction of the seven-day operation, several promotions at Powell River are announced: *G. A. V. (GUS) SCHULER*, with the company 40 years, has been made night shift superintendent; new boss machine tenders are *FRED W. CHURCH*, *W. ROY DONKERSLEY* and *HUGH C. McHALENP*, all vets of over 30 years. Groundwood shift foremen are *GUS OLSON*, *NELS RICHARDSON*, *JIM COCKRILL*, *TED JACKSON* and *JIM HUNTER*.

HE GOT THE "WORKS"

KING-SIZE PRESENTS for Gerry Alcorn at the "Wake-Em-Up Breakfast" show put on by the Migratory Peddlers of Seattle Waiting Room 2, when Mr. Alcorn was initiated as an honorary member. Left to right: FRED HOFFMAN, Hydraulix Supply Mfg. Co.; RUSS VOGNILD, Hooker Electrochemical; MR. ALCORN, construction engineer at Weyerhaeuser; DAVID W. HARRIS, C. C. Moore & Co.; and ED BARRETT, Barrett & Yost.

D. W. BENNETT has been appointed as advisor on forestry problems in mechanical logging to Timberland Machines, Ltd., Woodstock, Ont. Mr. Bennett was with Spruce Falls and the Canadian Association woodlands section.

MALCOLM COCHRAN, former manager of Hammermill Paper operations in Canada, has been made honorary life member of the Thunder Bay Timber Operators Association. *H. KEN CAMPBELL* of Marathon Mills of Canada was presented with a certificate for his part in production of a fire fighting film.

JOHN PREVOST, former woodlands superintendent with Fraser Cos., Edmundston, N.B., has been appointed resident woods manager at Forestville, Que., for Anglo-Canadian Mills, assisting *JULIAN MERRILL*, company woods manager.

C. H. RIMMER, formerly research, Howard Smith Mills, Cornwall, Ont., has joined the technical department of Consolidated Paper at Three Rivers.

PAUL E. ROBERTS, v. p. and general manager, Alaska Pine & Cellulose, Ltd., has been elected chairman of the western division, Canadian Pulp & Paper Assn. The division executive committee includes: *WALTER C. KOERNER*, Alaska Pine; *L. L. G. BENTLEY*, Howe Sound Pulp; *WENTWORTH BROWN*, Columbia Cellulose; *H. J. MACKIN*, Elk Falls Co; *B. M. HOFFMEISTER*, MacMillan & Bloedel; *PAUL E. COOPER*, Pacific Mills; *HAROLD S. FOLEY*, Powell River; *J. A. CRAIG*, Sidney Roofing & Paper Co.; *E. M HERB*, Westminster Paper; *LEANDER MANLEY*, secretary-manager

DR. THEODOR N. KLEINERT, distinguished cellulose chemist from Vienna, Austria, has joined the research staff of the Pulp and Paper Research Institute of Canada. *DR. ALAN ROBERTSON*, of the Institute and *DR. OLLE ANDERSSON*, of the Swedish Forest Products Research Laboratorp, Stockholm, have exchanged positions for a year.

F. S. (STEW) MORGAN, of St. Helens, Ore., resumes consulting work—plans to stay in pulp and paper.

Stew Morgan in Consulting; Will Stay in This Industry

F. S. (Stew) Morgan, whose four years as administrative manager of St. Helens Pulp & Paper Co., St. Helens, Ore., ended when that kraft mill was acquired by Crown Zellerbach, has been carrying on as an industry consultant. He lives at 445 North 9th, St. Helens, Ore., and intends to continue in this industry and is considering positions with pulp and paper firms. At St. Helens he was in charge of an expansion program.

His career has taken him far afield. He served ten years with a management consulting firm, four years as its chief engineer in South Africa, and four more as chief engineer on the Pacific Coast, working on mill maintenance, production control, converting operations and layout.

He was also in consulting work in Canada, and served with Howard Simons engineering firm on construction of the MacMillan & Bloedel pulp mill at Port Alberni, B.C.

Files for Alaska Mill

Georgia-Pacific Plywood Co., already holding a tax writeoff certificate on 40% of a proposed $54,174,000 newsprint plant near Juneau, Alaska, has filed an application with the Forest Service for a block of timber. If accepted, the timber must be sold at an announced auction.

Milton Baileys In Hurry To Get To Arizona

Milton Bailey, vice president of Bulkley, Dunton Pulp Co., and Josephine, his wife, will be leaving their Kalamazoo, Mich., home soon for Arizona, and it won't be any too soon! On Dec. 15 they became grandparents again and they are looking forward to seeing baby Katherine at the ranch home of their son-in-law and daughter, Mr. and Mrs. Frank Boice at Sonoita, Ariz. (She was Sherry Bailey). Katherine has an older brother, Stephen.

U. S. Route 23 Is Mead's "Main St."

U. S. Route 23 is often called The Mead Corp.'s "Main Street" as it passes through four Mead mill towns in its course from north Michigan to Florida—Chillicothe, O., Kingsport, Tenn., Sylva, N. C., and Macon, Ga. At its north end it is easily accessible to the Escanaba, Mich., mill and to Brunswick (half-Mead) and others in the South. It is a "lifeline" for Mead products and supplies.

EQUIPMENT and SUPPLY CO. NEWS

BABCOCK & WILCOX CO., New York, tells about selection of stainless tubing and pipe for corrosion resistance in a bulletin issued by its Tubular Products Division. The 8-page folder gives comparative resistance of stainless steels to corrosive media, presenting data on six widely used stainless tubing steels and several hundred corrosive media at various temperatures and concentrations. Copies available on request to sales office, Beaver Falls, Pa.

JOHNS-MANVILLE, New York City, has two publication releases—one on Sorbo-Cel, describing its use as a filter for removing emulsified oil from condensate or process water; and the other a new edition of the company's 40-page Industrial Products Catalog. This catalog covers essential data on insulations, refractory products, asbestos cement pipe, packings, gaskets, electrical products, frictional materials, roofing, siding, flooring, partitions and ceilings. Copies free on request to Johns-Manville, 22 E. 40th St., N. Y. 16.

GENERAL ELECTRIC CO. describes Amplidyne systems and their operations in a new two-color, 24-page booklet designated GEA-4053. It contains color charts, photographs and other illustrations on electrical principles of the system. Copies may be obtained from the company, Schenectady 5, N.Y.

EARL PAINT CORP. announces a new synthetic rubberized coating possessing exceptional chemical resistance, Erchlor 1900, has been developed to meet plant conditions where ordinary lines of chlorinated rubber finish have not been sufficiently resistant to withstand severe corrosive conditions. Erchlor 1900 is recommended for such exposures as brown stock washers, digester pumps, motor bases, wet end of paper machines, and similar equipment; and for outside service on cranes, tractors, bulldozers, etc. It is a compound of chlorinated rubber incorporated with special corrosion and chemical resistant plasticizers and synthetic resins. Further information may be obtained from Earl Paint Corp., 240 Genesee St., Utica 2, N.Y.

BRANSON INSTRUMENTS issues an illustrated 4-page folder on data necessary to selection of the ultrasonic thickness-measuring instrument best suited to problems such as measuring digester thickness. Tabulated data covers models of portable Audigage thickness testers, as well as the new Automatic Vidigage. Copies of Ultrasonic Specifications Folder on request from Branson Instruments, Inc., 430 Fairfield Ave., Stamford, Conn.

THE SCHIELD BAMTAM Co., Waverly, Iowa, has announced addition of an all-new, specially designed Crane Carrier to its line of factory furnished trucks available for mounting of the Model T-35 Schield Bantam. Featuring a rugged 12 ft. "I" beam frame, 26,000 lb. rated rear axles and large tires, the new Bantam Crane Carrier provides maximum stability and versatility under all operating conditions. Maneuverability is an outstanding feature.

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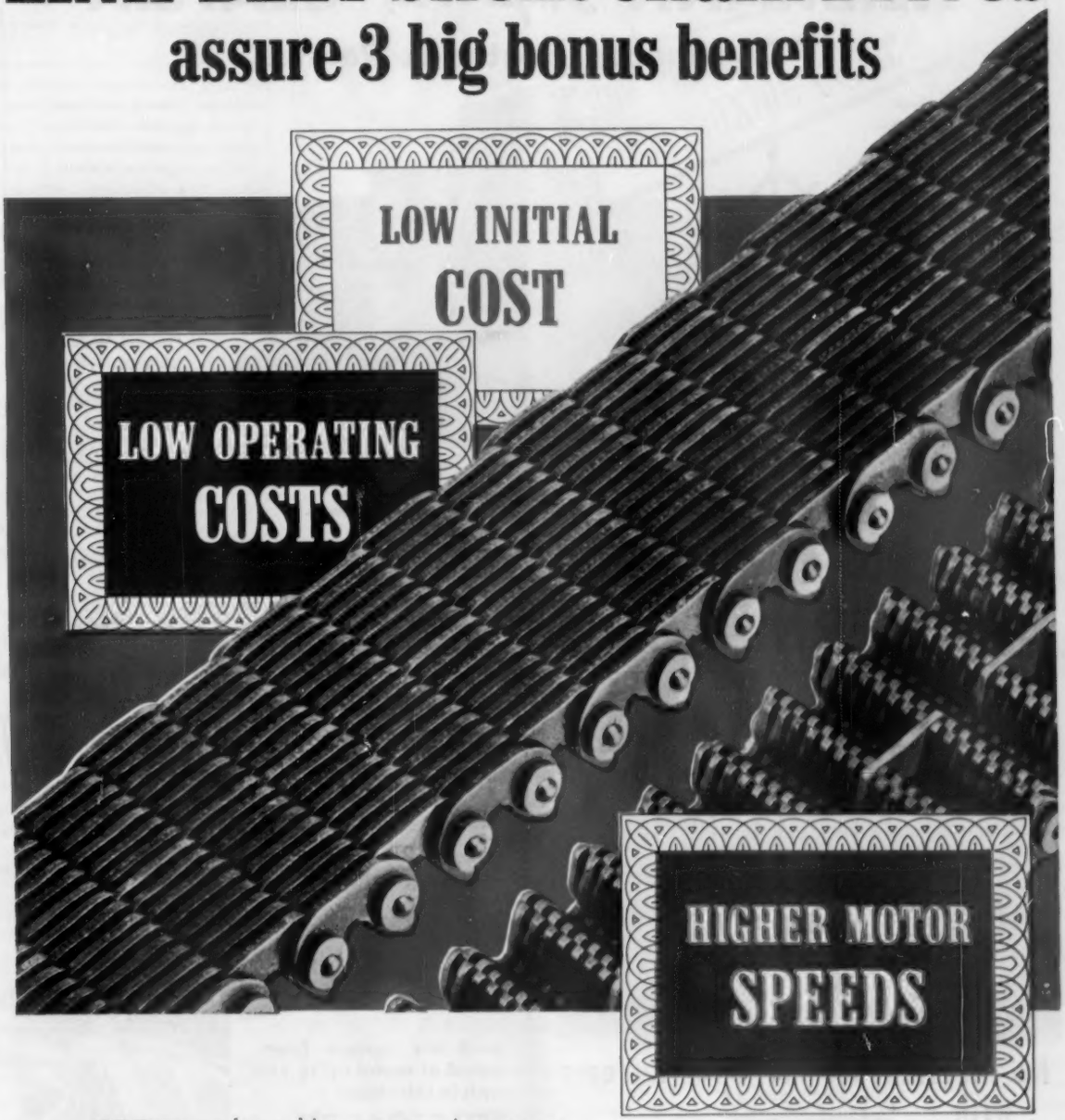

WHEN you buy a drive, you expect it to operate efficiently throughout its entire life. And with Link-Belt Silent Chain, you're assured of better than 98% *sustained* efficiency throughout its many years of service! What's more, these positive, no-slip drives are low in first cost . . . low in operating costs. And, with their ability to operate at higher speeds, you can reduce your investment in motors and controls. Link-Belt Silverstreak Silent Chain Drives are available from fractional to thousands of hp. You can obtain ½ to 50 hp drives (ratios of 1:1 to 7:1) from stock. Get complete information from your Link-Belt sales office or distributor.

LINK-BELT

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13,242

LINK-BELT COMPANY: Plants: Chicago, Indianapolis, Philadelphia, Colmar, Pa., Atlanta, Houston, Minneapolis, San Francisco, Los Angeles, Seattle, Toronto, Springs (South Africa), Sydney (Australia). Sales Offices, Factory Branch Stores and Distributors in Principal Cities.

WANTED: Steel tanks, 7 to 10 foot diameter, minimum wall ¼ inch. Sectional tanks preferred. Also 3 to 4 foot diameter, minimum wall ¼ inch, 6 to 8 feet long. When offering, give complete specifications. Write Box 170, PULP & PAPER, 370 Lexington Ave., New York 17, New York.

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Les't We Forget? Not Much Chance at KVP!

When there's a call for "Les" in Kalamazoo Vegetable Parchment Co.'s No. 2 Mill in Parchment, Mich., there's a good chance that four gentlemen would stand up in the superintendent's office. Often seen in a "huddle" in that office are:

Les LaLiberte, No. 2 Mill superintendent, who "chairmans" the meeting;

Les Hill, No. 2 Mill assistant superintendent;

Les Robbins, No. 2 Mill tour boss, and

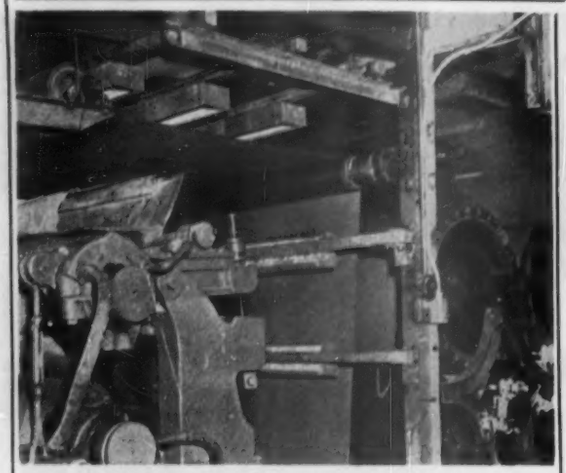
Les Smith, No. 2 Mill roll room supervisor.

Harold Murdock Writes, Works in Arizona

Harold R. Murdock, former research director for Champion Paper and after World War II the top paper and pulp industry advisor for General MacArthur in Japan, is presently in Tucson, Ariz, serving in a consulting capacity to Infilco Inc., in waste and water treatment problems and is writing a monthly column on "Industrial Wastes" for *Industrial and Engineering Chemistry*. His address is 431 So. Alvernon, Tucson.

Fred Pontin Dies in Accident

Fred Pontin, who has visited many Pacific Coast mills for many years, giving them safety drills and training, was killed accidentally Jan. 7. Mr. Pontin, who was assistant general safety supervisor of Crown Zellerbach Corp., was fatally hurt when his car plunged down a 100-foot cliff into the Willamette River at West Linn, Ore.



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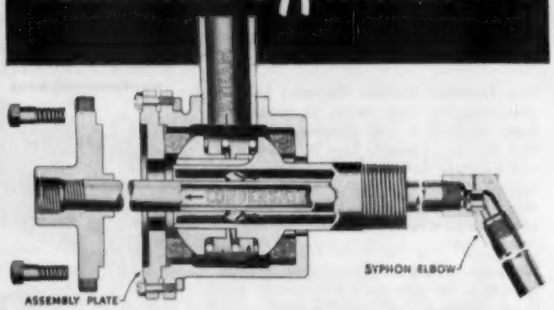

In the picture above you see a combination of welcome new ideas for the paper industry. It is built around the new Johnson Joint, which has been redesigned for lighter weight, lower cost, longer operating life. There's a special assembly plate to hold internal parts in position when the head is removed to get at the syphon pipe. And the syphon elbow is new altogether. It permits the use of straight pipe for the syphon connections, forms a tight seal when in position, and can be inserted or withdrawn right through the joint body, in many cases while the machine is operating.

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